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CONCEPTS EVALUATION MODEL MODIFICATIONS FOR HEAVY/LIGHT FORCES --ETC(U)
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1068-01-79-CR

LEVEL II

Concepts Evaluation Model Modifications for Heavy/Light Forces Evaluation (CEMHL)

FINAL REPORT

By:

John E. Shepherd

March 1979

OPERATIONS ANALYSIS GROUP

GENERAL RESEARCH CORPORATION

A SUBSIDIARY OF FLOW GENERAL INC.

7655 Old Springhouse Road, McLean, Virginia 22102

Submitted To:

Mr. Phillip E. Louer
Office Deputy Chief of Staff for Military
Operations and Plans, DAMO-ZD
Room 3A538
The Pentagon
Washington, DC 20310

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STUDY TITLE:	Concepts Evaluation Model Modifications For Heavy/Light Forces Evaluation (CEMHL)
SHORT TITLE:	Heavy/Light Forces Special Study
CONTRACT NUMBER:	MDA903-78-C-0466
PERFORMANCE PERIOD:	12 Sept. 1978 - 1 March 1979
NAME OF CONTRACTOR:	General Research Corporation 7655 Old Springhouse Road McLean, Virginia 22102
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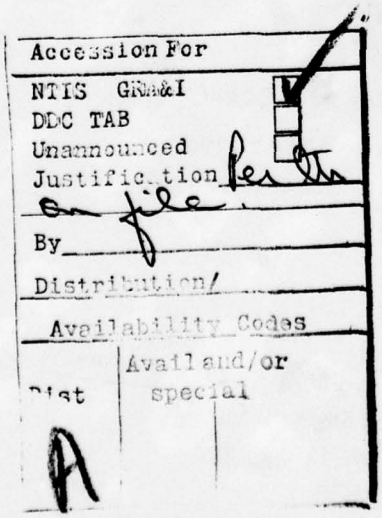
SUBMITTED TO:	Mr. Philip E. Louer Office Deputy Chief of Staff for Military Operations and Plans, DAMO-ZD Room 3A538 The Pentagon Washington, D. C. 20310



SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
(14) REPORT NUMBER: 1068-01-79-CR	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
(6) 4. TITLE (and Subtitle): CONCEPTS EVALUATION MODEL MODIFICATIONS FOR HEAVY/LIGHT FORCES EVALUATION (CEMHL).		(9) 5. TYPE OF REPORT & PERIOD COVERED: FINAL rept. 12 Sept 78 - 1 Mar 79
(10) 7. AUTHOR(s): John E. Shepherd		(15) 8. CONTRACT OR GRANT NUMBER(s): MDA903-78-C-0466 new
use → 9. PERFORMING ORGANIZATION NAME AND ADDRESS: General Research Corporation ~~Tactical Warfare Operations~~ 7655 Old Springhouse Rd., McLean, VA 22102		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS: Office Deputy Chief of Staff for Military Operations & Plans, DAMO-ZD Washington, DC 20310		(11) 12. REPORT DATE: March 1979 13. NUMBER OF PAGES
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) (12) 161 p.		15. SECURITY CLASS. (of this report): Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

This document has been approved for public release and sale; its distribution is unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Force Structure, Conventional Warfare, Theater Warfare Models

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Technical assistance to the Army in conceptual design changes to the Concepts Evaluation Model to support the Heavy/Light Force Study.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

411 050

CONTENTS

ACKNOWLEDGMENT

This report documents modifications to the Concepts Evaluation Model (CEM) which were developed and implemented at the US Army Concepts Analysis Agency. The author is indebted to Mr. Phillip Louer of the Office of the Deputy Chief of Staff for Operations and Plans, Department of the Army under whose direction these modifications were made. LTC James Malley and Dr. Ralph Johnson of the US Army Concepts Analysis Agency assisted Mr. John Shepherd of General Research Corporation (GRC) in the development, implementation, and testing of these modifications.

1. INTRODUCTION. The essence of the problem facing the Heavy/Light Forces (H/L) Study was to evaluate a proposed ground force configured to exploit a fortified defense line and to compare this force to other forces of about the same demand on US resources.

Under the current concept, mobile forces would meet (receive) the initial attack. Forces remaining after the initial defensive battles would be used to restore the prewar boundaries. The proposed alternative concept calls for a light defensive force manning a fortified (bunker) line stretching across the entire NATO Center Region (Baltic to the Alps). This fortified line would receive the initial attack, leaving the mobile force in reserve to counter breakthroughs.

A previous analysis had been conducted using static indicators (e.g., WEI/WUV scores), but these were inadequate to represent the interactions over the duration of a campaign. A dynamic analysis was therefore deemed necessary, and, since the proposal is a theater defense concept, the use of a theater combat simulation appeared to be the best approach.

Specifically, a theater model was required which could portray the initial attack of the fortified line, the rupture or defeat of the fortifications, and the transition to maneuver force warfare behind the fortified line. No dynamic theater combat simulation model existed at the beginning of the H/L Study that would portray

this range of proposed concepts. The best candidate model available for modification was the Concepts Evaluation Model (CEM).

2. SPECIFIC TASKS. The General Research Corporation (GRC) was placed on contract in October of 1978 with tasking as follows:

a. Participate with the Army in the conceptual design of the CEM modifications.

(1) Representation of extensive bunker defenses which are supported by highly mobile defensive forces.

(2) Representation of phased withdrawal of defensive forces to predetermined defense lines.

(3) Improved representation of division unit replacement and rotation policies.

b. Program the above and incorporate said program modifications into CAA's current version of the CEM.

3. DESCRIPTION OF CEM PROGRAM CHANGES

3.1 General. This section describes program changes to the CEM which have been developed, documented, and tested at CAA in support of the H/L Study. The current version of the CEM H/L program is held at CAA under the file listing 71CEMBX. Although this report fully documents the CEM H/L changes, it is not intended as a complete description of the CEM. For this purpose, the reader is referred to GRC Report OAD-CR-60, Conceptual Design for the Army in the Field, CONAF Evaluation Model IV, Parts I, II, and III, November 1974.

3.2 General Description of Program Changes. Described below are a number of particular changes accomplished to fulfill the above tasks. As it turned out, it is not possible to draw a clear distinction of those changes belonging to each task. Those changes accomplished to represent bunker forces, the overrun of these, and the reinforcement by the mobile reserve transcend all of the tasks. It may be observed that the CEM was originally designed such that its decision logic and representation of combat implicitly assumes force mobility. Many of the changes below were required to overcome the mobility assumptions for border division forces.

(1) The bunkers are the main weapons of the border division. These bunkers may not move, once set; therefore, the CEM was modified to count each bunker in each minisector of frontage.

(2) The boundaries of a border division containing bunkers may not be adjusted so as to concentrate fire against the attacker. As noted, the bunkers are fixed in position; consequently, the CEM logic was modified to prohibit adjusting the boundaries of a border division.

(3) The bunkers, once destroyed, are not replaced. This required the normal CEM resupply logic to prohibit such replacements/repairs.

(4) The border division may not be reconstituted to a reserve status. The CEM decision/estimation and replacement logic had to be modified such that this limitation was recognized.

(5) The fixed border unit logic had to be blended into the conventional mobile unit logic such that both types of units could occupy adjacent sectors. The army and corps estimation logic was modified such that the reinforcement of a border division by a conventional reserve division was prohibited, yet the same logic must continue to recognize conventional rules for the reinforcement of mobile divisions.

(6) The CEM lacked the criteria to measure the defeat, rupture, or passing of a border unit by the attacker. Two criteria were developed and implemented into the CEM assessment:

(a) A border unit is considered defeated when its losses reduce its state (current firepower/full TOE firepower) below a user set threshold.

(b) A border unit is considered to have been "passed" (encircled) by the attacker when both of its flanks are exposed to enemy fire exceeding an input value.

Given either of these two conditions, a border unit's frontage is taken over by a mobile division.

(7) A capability previously existed in the CEM to replace weak Blue divisions with stronger divisions from an army reserve pool. The capability was expanded to accommodate replacement of overrun border units, weak mobile units, and to provide a mobile reserve. Prior to the army and corps estimations, a reserve division is notionally assigned to those corps whose previous cycle

estimation indicated a need for additional firepower. This expanded allocation logic was blended into the border unit replacement logic. Border units requiring replacement get priority of call on these army reserve divisions. Weak mobile units are set as the next priority. Any unassigned army reserve divisions are then notionally assigned to subordinate corps for potential commitment during the corps estimation. If the division is committed, the notional assignment becomes an actual assignment. Otherwise, the division is retained in the army reserve pool. In the case where a border unit requires replacement and the army reserve pool is empty, an on-line mobile division is withdrawn from the front to replace the border division (see Figure 1).

(8) In order to give the CEM logic more opportunity to assign divisions based on the current situation, the logic was modified such that reinforcing divisions arriving in the theater for both Blue and Red are assigned to the army pool. Should the army reserve pool have nine such divisions, all remaining reinforcing divisions are assigned to the front as corps reserve. Rebuilt Red decimated divisions previously were returned to the army/corps from which they came. Under the new logic, these rebuilt divisions also go to the army reserve pool for subsequent notional assignment to Red corps. Divisions are notionally assigned first to those attacking corps whose previous corps cycle estimation indicated they would commit a division. Remaining divisions may then be notionally assigned to defending corps (see Figure 1).

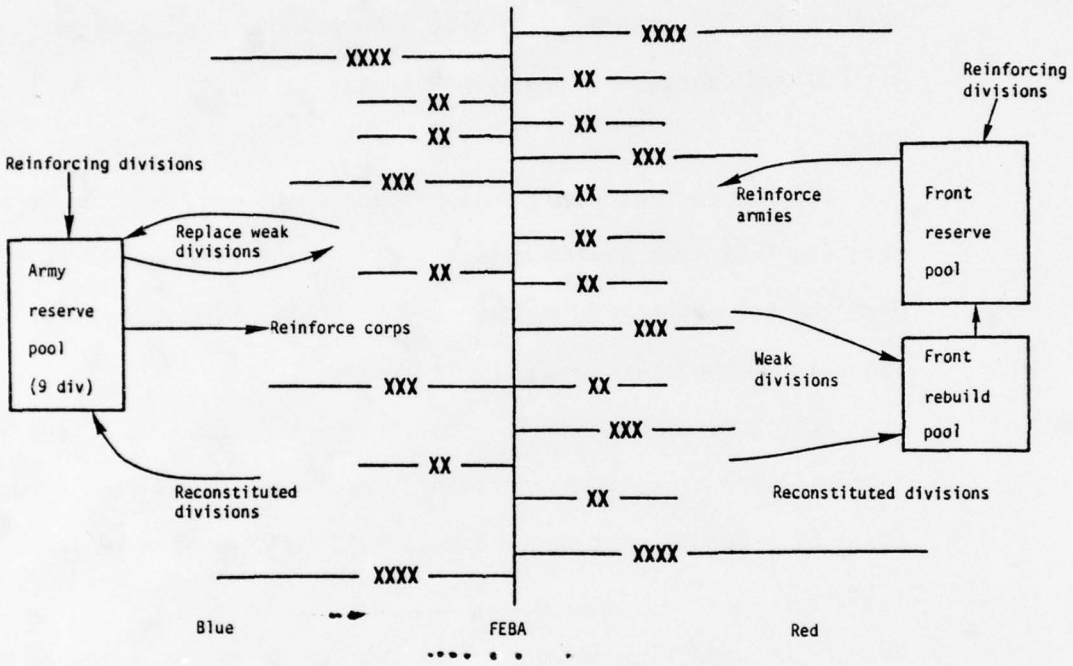


Figure 1. CEM H/L Mobile Reserve and Replacement

(9) Provision was made to modify the kill potential of Red weapons against the bunkers. Provision was also made to allow the Red infantry personnel to capture the bunkers.

3.3 Specific Changes. The following section of this documentation is a verbal description of the modifications made to each subroutine in support of the H/L Study. Several minor changes, such as DO LOOP ranges, were also made but not described here. All FORTRAN changes are contained in the last section of this report.

(1) Subroutine ADJUST: This subroutine was modified to prevent the FEBA from moving within the frontage of a border unit. Once the border unit is replaced by a mobile unit, the normal logic in the subroutine ADJUST is restored.

(2) Subroutine ARMART: This is a new subroutine to remove the artillery battalion's personnel, ammo, and tubes from a ruptured Blue border unit and place them in the Blue nondivisonal artillery.

(3) Subroutine ARMMOD: This subroutine was modified as follows:

(a) Prior to the assignment of reinforcing divisions (CALL ASNRDV), a new subroutine FLEX removes all unassigned corps reserve divisions from the corps and provides them to the army reserve pool (in the case of Red they are assigned to the decimation pool).

(b) After the reinforcing divisions are assigned (CALL ASNRDV) to the corps and army reserve pool, a new subroutine ASREIN notionally assigns divisions from the army reserve pool to those corps without a reserve division. This notional assignment of a reserve division to a corps gives the corps an opportunity to attempt to improve its estimated outcome by notionally reinforcing its on-line divisions (see write-up on subroutine ASREIN for rules on assignment).

(c) If the defense switch (IDEFSW) is on, the subroutine EXAMIN is called, for the Blue side only, following the CALL to the subroutine ASNRDV and prior to the CALL to the subroutine ASREIN. The subroutine EXAMIN will replace the weak on-line division(s) with stronger unassigned division(s) from the army reserve pool. This sequence of logic gives priority of replacement(s) to the weak on-line division over the subsequent notional reserve division assignment from the army reserve pool. The foregoing changes to the subroutine ARMMOD give flexibility to both Red and Blue, the lack of which had previously caused the CEM to develop some illogical unit asignment i.e., the CEM could have a division in reserve to a corps in which the corps saw no situation improvement by the commitment of the reserve. As a consequence, the reserve division remained in the corps reserve when it might well have been effectively used by another corps. See write-ups on the subroutines, ASNRDV, ASREIN, EXAMIN, and FLEX.

(4) Subroutine ASNRDV: This subroutine was modified to:

(a) Turn Red rebuilt decimated divisions over to the Red army reserve pool(s).

(b) Assign reinforcing divisions arriving in theater to the Army reserve pool. If the pool is full, maximum of nine divisions, the normal ASNRDV logic prevails.

(c) Blue corps selected to receive a reinforcing division must have at least one maneuver unit which has sufficient frontage to accommodate at least two divisions.

(d) A correction was made to this subroutine (ASNRDV) to count not only the divisions in the on-line corps but those in a reserve corps (should such exist) and in the army reserve pool. This total division count is then compared with the army frontage to determine if a reinforcing division may be properly added to any of the army's subordinate corps.

(5) Subroutine ASREIN: This is a new subroutine which is called by the subroutine ARMMOD once each army cycle for each side. This subroutine examines all corps which do not have a reserve division. Those corps without a reserve division, with adequate frontage to commit a reserve division and with a previously estimated need (force ratio), are assigned (notionally) the strongest of the unassigned army reserve pool divisions. Those corps with border unit(s) may be assigned a reserve division if at least one of the corps' subordinate maneuver divisions has

sufficient frontage to accommodate both divisions while maintaining the required minimum frontages. The priority of assignment for these army reserve pool divisions is based on the corps mission; first priority is delay, second priority is attack, and third priority is defend.

Should the assignment of one of these army reserve divisions cause a new corps to be created (recall that a corps may have a maximum of five divisions, the addition of a sixth will cause a new corps headquarters to be created), it will be created.

Should the reserve division assignment cause the creation of both a new corps and a new army headquarters (same rule as divisions/corps) the assignment will take place if there are more than 17 divisions in the army.

Should the assignment of an army reserve pool division cause the creation of a new army headquarters the following alteration is made to the parent army reserve division pool:

(a) All unassigned army reserve pool divisions are shared equally between the parent and new army headquarters reserve division pools if each army has sufficient frontage.

(b) All other normal rules for the creation of new army and/or corps headquarters are followed.

(6) Subroutine ASSESS: This subroutine was modified to:

(a) Compute the FEBA change against a border unit. (The computation of which is based on type "C" terrain).

(b) Should the loss exceed a set threshold, the border unit is reptured by the attacker.

(c) For each minisector in which the cumulative FEBA loss equals or exceeds 4.7 km, the bunkers are removed from the border unit's status file.

(7) Subroutine CALCPF: This subroutine was modified to prevent an on-line maneuver division from being considered as a potential reserve unless at least one of its flanking divisions is a nonborder division. Keep in mind only nonborder divisions may spread-out to occupy front vacated by a reconstituted division.

(8) Subroutine COMIT: This is a new subroutine to commit the reserve brigade if one or both of the on line brigades have an estimated outcome of a draw. If only one brigade has an estimated draw and adequate frontage to be reinforced, the reserve brigade is so assigned. If, however, both on-line brigades have an estimated outcome of a draw the following rules govern the reserve brigade assignment. If the missions of the two on-line brigades are:

(a) Attack and defend, attacking brigade is reinforced by reserve brigade.

(b) Defend and delay, delaying brigade is reinforced by reserve brigade.

(c) Attack and attack, the strongest brigade (RIFP) is reinforced by reserve brigade.

(d) Both defending and delaying, the weakest (RIFP) brigade is reinforced by reserve brigade.

(9) Subroutine DDEND: This subroutine was modified to:

(a) Avoid resupply to a withdrawn (replacement) border unit.

(b) If the state of a border unit is less than or equal to a user specified threshold, it is flagged for replacement.

(c) Switch from decimated division resupply to unit replacement resupply after a user specified time has expired.

(10) Subroutine ESTIMA: This subroutine was modified to:

(a) Prevent the shifting of corps boundaries within a Blue army which contains a border unit.

(b) Correct the estimation such that the army examines the estimated attacker to defender ratio minus the weakest corps firepower, then determines if it can reconstitute its weakest corps and still undertake its current mission. This change also involved a correction to the subroutine CALAFP to properly compute the SMIFP variable.

(11) Subroutine ESTIMC: This subroutine was modified to:

(a) Prevent committing (considering) a reserve division in support of a border unit.

(b) Prevent the shifting of division boundaries within a corps containing a border unit.

(c) Prevent reconstituting a border unit to a corps reserve status.

(d) Permit the Red decimated division replacement logic to revert from unit replacement to individual replacement after a specified (user input) time, i.e., prohibit Red units from being considered for the decimation pool, regardless of unit state.

(e) Alter the process by which a potential reserve division is selected such that the threshold is compared with the firepower of the corps excluding the firepower of the potential or actual reserve division.

(f) Cause Blue on-line (nonborder) divisions to replace ruptured border units (calls a new subroutine RECONA).

(g) Save the corps' estimated force ratio in an array (CEPTHR) to be used in ASREIN subroutine to assign reserve divisions.

(12) Subroutine ESTIMD: This subroutine was modified to inflict losses to divisions in the Red and Blue army reserve pools as a result of enemy close air support and general support artillery fire.

(13) Subroutine KIDNAP: This subroutine was modified to:

(a) Call the new subroutine ARMART which removes the artillery battalions (personnel, ammo, and tubes) from a ruptured Blue border unit and places them in the Blue nondivisional artillery.

(b) Remove all on-hand equipment from the status file of a ruptured border unit and add surviving personnel from unit to the theater replacement pool.

(14) Subroutine ESTMBV: This subroutine was modified such that if the Blue division estimation has not committed the reserve brigade, the subroutine COMIT is called. Also it prohibits normal Blue estimation for border units and allocates CAS, artillery and cavalry assets to subordinate brigades based on force ratio. Subroutines ASSESS and GETBV were also modified for this change.

(15) Subroutine ESTR1: This subroutine was modified such that if a division's estimated outcome is a "draw", the GS to DS artillery conversion and the increased fire rate artillery switches are turned on. These switches are also turned on for the first two army cycles.

(16) Subroutine EXAMIN/CANDTE/KIDNAP: These three subroutines were changed to permit the Blue weak on-line division replacement logic to replace more than one on-line division from the army reserve division pool in a single army cycle.

(17) Subroutine FLEX: This is a new subroutine which is called by the subroutine ARMMOD once each army cycle for each side. This subroutine examines all corps for reserve divisions without a commitment plan. All such divisions found are removed from the corps and placed in the army reserve pool (see the write-up on the ARMMOD subroutine).

(18) Subroutine INITAL: This subroutine was modified so as to identify and flag border units by checking for presence of type one (1) tank(s). If a type one (1) tank is present, the unit is flagged as a border unit.

(19) Subroutine PHASER: This is a new subroutine which, when called, will return either the distance from the FEBA to a particular phase line or the distance to the closest phase line. A positive distance indicates the FEBA is yet to reach the phase line. A negative distance indicates the FEBA is beyond the phase line (see detailed write-up on phase lines).

(20) Subroutine PIKBV: This subroutine was modified to prevent any Blue unit from attacking if its front has passed the battlefield end points. Same modification for Red (PIKRV).

(21) Subroutine RARTS: This subroutine was modified to include the artillery from the divisions in the army reserve pool in the theater general support.

(22) Subroutine RECONA: This new subroutine searches for Blue on-line maneuver divisions which may be withdrawn and used to replace ruptured border units (if the army reserve division pool is empty).

(23) Subroutine RECOND: This subroutine was modified to prevent a border unit from assuming the frontage of a reconstituted reserve division.

(24) Subroutine STAMAT: This subroutine was modified to:

(a) Alter the attrition algorithm for bunkers so that infantry will have some capability of destroying these bunkers.

(b) Provide for a firepower against bunkers which may differ, by category of shooter, from that used against more

conventional tanks. The subroutine CB was also modified for this change.

(c) Account for surviving bunkers by minisector rather than by brigade. This will prevent the model from giving uniform distribution to bunkers during subsequent cycles. Keep in mind bunkers cannot move; once a bunker is killed in an area of the front, it is destroyed forever. Other subroutines requiring modifications for this change are INUBDV, TNKAPC, and DDEND.

(25) Subroutines which required minor changes. The quantity of divisions which may be in an army reserve pool at any one time was increased from four to nine. The following subroutines required some modification(s) to accomplish this change:

Main Model

TCDATA	ICRDMD
READAT	REPLST
ARMMOD	UPLST
ASNRDV	ARESQ
CANDTE	DIVMOD
ESTIMA	DIVRPT
EXAMIN	KIDNAP
ESTIMD	

Preprocessor

THESEC

Postprocessor

PROCUT	TSTCLC
RDTCM	UTLOG
STCALC	UTREP

(26) To allow the Red equipment repair capacity to vary over time and be prorated between types of equipment, modifications were required to the following subroutines in both the CEM preprocessor and main model:

Preprocessor	Main model
RUNSEC	SHELF
UNTSEC	HELOSS
	RESLOS
	TNKAPC

(27) Several subroutines were modified to update the CEM reports to include information either not reported or unique to the bunker unit/army reserve pool logic.

(a) To include in the Tactical Report those divisions in the Red army reserve pools, the following subroutines were modified:

DIVRPT	TSTCLC
PROCUT	UTLOG
RDTCM	UTREP
STCALC	

(b) To report the initial authorized resources of the Blue

cavalry units which are in reserve, the subroutine PRBDIV was modified.

(c) To include in the Tactical Report the equipment on hand in each unit rather than the losses to each unit, the following subroutines were modified:

PRBDIV PRRDIV

(d) To write the detail diagnostic output of the main model to tape (each division cycle is a single file) such that selected files (division cycles) may be printed as post analysis suggests requirement(s), the following subroutines were modified:

CEMX TCDATB

3.4 New Common Arrays. The following is a description of new common arrays which were required for the border unit concept. As can be seen by a review of the FORTRAN changes to the CEM, other common arrays were also modified.

(a) COMMON/BORDIV/INFORT (70). Contains a Blue division status indicator which is indexed by the index of each Blue division. The indicator is as follows:

(b) INFORT(N)=0, if a Blue division N is a mobile (non-border) unit.

(c) INFORT(N)>0, if Blue division N is a bunker unit which has not yet been overrun.

(d) INFORT(N)<0,

if Blue division N is an overrun bunker unit.

(e) COMMON/BUNKER/TANK1 (600), TANK6 (600). Contains the quantity of main gun bunkers surviving for each minisector of the theater (TANK1). TANK6 is same as TANK1 but for TOW bunkers. This array is indexed by minisector.

(f) COMMON/BORBDE/FRACBD (3,28). Contains, for each brigade in each Blue border unit, the fraction of the division's close air support and air cavalry resources currently allocated to the brigade. This fraction is based on the relative enemy-to-friendly firepower ratio of the brigade. FRACBD (i,j), where i is the brigade and j is the division.

(g) COMMON/SSLIMIT/ILO, IHI. Contains, during the engagement assessment, the northern and southern minisector boundaries of the current assessment subsector. During the resupply phase, the variable ILO takes the value -5 to distinguish between assessment and resupply.

(h) COMMON/BIGLOS/OSSES (45,4). Contains attrition results for all units involved in a single engagement. (See description of the CEM array LOSSES.)

(i) COMMON/CAVBDE/ICRPB, IDIVB. Contain, respectively, the parent corps and division index of the Blue brigade currently involved in the engagement assessment.

(j) COMMON/IREPL/RPOOLR (9,3,11), RPOLRC (11). RPOLRC(k) is the count of the kth Red army reserve pool divisions.

(k) RPOOLR(i,j,k) contains the index of the ith division contained in the kth Red army reserve pool. j_1 is the index, j_2 is the index of an on-line unit to be replaced, and j_3 is the delay between the time of flagging the Red army reserve pool division to replace a weak on-line division and the actual replacement.

(l) DIMENSION FPTUBE (8)/0.095,.190,.080,.052,.0005, .0005, .038, .115, .006/. Contains, for each type of Red artillery tube, the firepower per tube against bunker targets.

(m) COMMON/CORDER/CFPTHR (5,11,2). Contains the corp's estimated force ratio minus the upper threshold (above which the corps will):

1. Not commit a reserve division.

2. Reconstitute an on-line division to reserve status.

In other words, this value CFPTHR (corps, army, side) is an indication of how much a corps would more effectively engage the enemy if it had a reserve division. The more negative this value, the more badly the corps needs the reserve division. This value is set in the subroutine ESTIMC and is used during the following army cycle by the subroutine ASREIN. Recall the subroutine ASREIN notionally assigns reserve divisions to each corps as a function of relative need within each mission.

3.5 Phase Lines. The phase line(s) logic was developed for the CEM to permit event triggers as a function of unit location or

the relative distance from a particular location. For example, here before one could program the CEM to recognize "panic" or danger as a function of rate or time of events. With the addition of the phase lines, one can define danger or panic as a function of how fast the FEBA is currently moving and its expected time to reach some particular point (area). This current logic is programed to accept up to three separate phase lines per side. A phase line may extend across the entire theater or any portion thereof. The inputs are:

Low minisector boundary for line .

High minisector boundary for line .

FEBA coordinate for line .

The "MINISCTR" card was modified to include a card count entry. This is the count of cards to follow the "FEBALOCN" card, which contains the phase line dimensions. (At present, this count must equal one.)

A new input card "PHASLINE" has been developed for the CEM preprocessor. This card must follow the "FEBALOCN" card and just in front of the "ENDPNTS" card (i.e., between the "FEBALOCN" and "ENDPNTS" Cards). Blue phase line card must preceed Red.

One subroutine has been written which will compute the distance from the current FEBA, as bounded by the minisector coordinates in the subroutine calling sequence, to either the closest phase line or to a specified phase line. For example:

CALL PHASER (IL, IH, IS LN, IDIST)

IL: LOW MINISECTOR BOUNDARY OF SEARCH.

IH: HIGH MINISECTOR BOUNDARY OF SEARCH.

IS: SIDE.

LN: Phase line number (0, 1, 2 or 3). To compute distance from FEBA to phase line zero (0) will compute distance (IDIST) to nearest phase line and return not only the distance (IDIS) but also the number (1, 2 or 3) of the nearest phase line (LN).

IDIST: Distance to phase line (LN) from FEBA.

MINISECTOR/WEAK DIVISION

FORMAT: 2A4, 2X, 4I5, F5.2, 2I5, 2F5.0, 2I1, 15X, A3, I5

Col	Format	Entry
1-8	2A4	"MINISCTR"
9-10	2X	Blank
11-15	I5	Number of minisectors in theater, > 0, ≤ 1000
16-20	I5	Number of minisectors per terrain band, >0
21-25	I5	Minimum Blue division frontage, ≤ minisectors
26-30	I5	Minimum Red division frontage, ≤ minisector
31-35	F5.2	Force density ratio of flanks to front
36-40	I5	Maximum allowable flank in hectometers
41-45	I5	Maximum number of Blue divisions which can exist in an army reserve pool, max ≤9. Note, if this entry is zero (0), the defense switch is considered off.
46-50	F5.0	If the defense switch is "on" (cols 41-45 >0), and the Blue division's atk/def DRIFP is greater than this entry, and the Blue division is at a minimum frontage +1 minisector, the Blue division is "tagged" as a weak division
51-55	F5.0	If the ratio of IFP X STATE of the strongest army's reserve division to the army's weakest on-line division is greater than this entry, the strongest

army reserve division will replace the weakest on-line division

56-60	F5.0	Subsector flank-to-frontage; - not used
61		Blue phase-lines card count
62		Red phase-lines card count
63-72	12X	Blank
73-75	A3	Sequence label
76-80	I5	Sequence number

Phase Line Card 10 January 1979

Format: 2A4, 2X, 3(3I5,5X), 2X, A3, I5

Col	Format	Entry
1-8	2A4	"PHASLINE"
9-10	2X	BLANK
11-15	I5	LOW MINI BOUNDARY LINE 1
16-20	I5	HIGH MINI BOUNDARY LINE 1
21-25	I5	FEBA COORD LINE 1
26-30	5X	BLANK
31-35	I5	LOW MINI BOUNDARY LINE 2
36-40	I5	HIGH MINI BOUNDARY LINE 2
41-45	I5	FEBA COORD LINE 2
46-50	5X	BLANK
51-55	I5	LOW MINI BOUNDARY LINE 3
56-60	I5	HIGH MINI BOUNDARY LINE 3

61-65	I5	FEBA COORD LINE 3
66-72	7X	BLANK
73-75	A3	SEQUENCE LABEL
76-80	I5	SEQUENCE NUMBER

The following common array was added to CEMPROC (BDEDIV) for phase lines;

LNPHSE (3,3,2).

LNPHSE (i, j, k) where:

i = 1 = Low minisector boundary

2 = High minisector boundary

3 = FEBA coordinate

j = 1 = Line 1

2 = Line 2

3 = Line 3

k = 1 = Blue side

2 = Red sideed

The block data, PREDAT, was modified to accept the phase line COMMON array and card image format.

The subroutine, THESEC, was modified to read the phase line description card(s) and transmit said descriptions to the MAIN model.

The subroutine, READAT, in the MAIN model, was modified to read

the phase line descriptions transmitted by the preprocessor (THESEC) (via a binary input file).

3.6 CEM FORTRAN Modification. The following section of documentation contains listings of the FORTRAN changes to the CEM for the H/L Study. This section is not intended to contain a complete FORTRAN listing of the CEM. It does contain a listing of the FORTRAN changes and surrounding FORTRAN statement such that the identification of where and what can easily be made. To further assist the reader, a solid vertical line has been drawn along the left hand margin adjacent to all such changes.

Subroutine listings contain herein are:

APPENDIX A

Listings of FORTRAN Changes to the CEM

```
@RUN,/TP   A275TC,1337UT8191,UNCLASSIFIED,020,600

@ASG,A   75PRINT1.

@FLIST,E   75PRINT1.
UNIVERSITY OF MARYLAND FILE LISTER   02/27/79   14:19:27
END FLIST  101 CARDS GENERATED.

@HDG,P  ******  ADJUST/ENDPNT  ******

@ELT,L 75PRINT1.ADJUST/ENDPNT
ELT007 S73R1A 02/27/79 14:19:31 (0,)
000001       00          COMPILER (XM = 8)
000002       00          SUBROUTINE ADJUST (NGAJ,IFEBCH,MNSTRT,MNSTOP,LFEBA,INDEXD,IFLNKS)
000003       00            INCLUDE PROC
000004       00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC
000005       00          DIMENSION LFEBA(3),IFLNKS(2)
000006       00    C
000007       00    C---------ROUTINE TO PERFORM AFTER-ASSESSMENT FEBA MOVEMENT
000008       00    C
000009       00          COMMON/PACKS/ LSSFBA
000010       00          INTEGER BTFEBA
000011       00    C     NEXT LINE CANCELED TO KEEP SIMULATION FROM STOPPING, JAN 79
000012       00    C     COMMON/ENDPNT/NOPNT(2,10)
000013       00          COMMON/CDSHFT/ FDRATO,MAXFLK,ARMLIB,CORLIB,ARMLIR,CORLIR
000014       00          INTEGER ARMLIB,CORLIB,ARMLIR,CORLIR
000015       00    C     NEXT 2 LINES CANCELED TO KEEP SIMULATION FROM STOPPING, JAN 79
000016       00    C     COMMON/ENDWAR/EOWSW
000017       00    C     INTEGER EOWSW
000018       00          INTEGER BTFEBM
000019       00    C     COMMON/SSDATA/INDSS(3,2),NENTSS(3,2),JENTSS(10,3,2)
000020       00          DIMENSION ISVAL(2)
000021       00          DATA ISVAL/1,-1/
000022       00          DIMENSION IARF(4)
000023       00          DATA IARF/4*0/
000024       00    C     NEXT 2 LINES ADDED TO PREVENT FEBA ADJUSTMTS TO BORDR DIV, 10/78
000025       00          COMMON/BORDIV/INFORT(70)
000026       00          COMMON/CAVBDE/ICRPB,IDIVB
000027       00    C      COMMON/VERT  / H2V     @CANCELLED (NOT USED) AUG 78
000028       00    C     ------     H2V IS THE RELATIONSHIP OF HORIZ SCALE (HECTOMETERS) TO
000029       00    C                THE VERTICAL SCALE (WIDTH OF A MINISECTOR)
000030       00    C                I.E., MINISECTOR = 1 KM, H2V = 0.10
000031       00    C
000032       00    C---------RETRIEVE CURRENT FEBA
000033       00          CALL CINDEX (MNSTRT,BTFEBA,INDEX,LOVER)
000034       00          CALL PIK (FEBA(INDEX),LOVER,BTFEBA,NOWFBA)
000035       00    C     NEXT LINE ADDED TO PREVENT FEBA ADJUSTMTS TO BORDR DIV, 10/78
000036       00          IF(INFORT(IDIVB) .NE. 0) GO TO 3800
000037       00          MXFEBM=2**BTFEBM-1
000038       00    C                     ** SOUTH TO NORTH LOGIC **
000039       00                          ISN=1-MOD(NDCYC,2)
000040       00                          ILO=MNSTRT
000041       00                          IHI=MNSTOP
```

```
000156      00          IF(IABS(IDIST).LE.MAXFLK) GO TO 12
000157      00          IF(NEWFBA.GT.NORTHF) GO TO 5
000158      00    515   ICHNG=IABS(IDIST)-MAXFLK
000159      00    C     WE MUST ADD ICHNG TO EACH FEBA IN THE SUBSECTOR.
000160      00          GO TO 6
000161      00        5 ICHNG=MAXFLK-IABS(IDIST)
000162      00    C     IN THIS CASE WE WANT TO AWARD RED SO WE SUBTRACT ICHNG.
000163      00        6 IF(ISN.EQ.0) GO TO 7
000164      00          CALL CINDEX(ILO,BTFEBA,INDEX,LOVER)
000165      00        7 DO 2900 I=ILO,IHI
000166      00          CALL PIK(FEBA(INDEX),LOVER,BTFEBA,NOWFBA)
000167      00          NEWFBA=NOWFBA+IFEBCH+ICHNG
000168      00          CALL PAK(FEBA(INDEX),LOVER,BTFEBA,NEWFBA)
000169      00          LOVER=LOVER+BTFEBA
000170      00     2900 CONTINUE
000171      00          GO TO 3101
000172      00       12 CALL CINDEX(ILO,BTFEBA,INDEX,LOVER)
000173      00          DO 3100 I=ILO,IHI
000174      00          CALL PIK (FEBA(INDEX),LOVER,BTFEBA,NOWFBA)
000175      00    C                   ** SOUTH TO NORTH LOGIC **
000176      00                        IF(ISN.EQ.0) GO TO 3104
000177      00                        IF(IHI.EQ.NMINI.AND.IABS(IFEBCH).GT.MAXFLK)
000178      00         *                IFEBCH=ISIGN(1,IFEBCH)*MAXFLK
000179      00                        GO TO 3105
000180      00    C                   **          END          **
000181      00    3104  IF(MNSTRT.EQ.I.AND.IABS(IFEBCH).GT.MAXFLK)
000182      00         *       IFEBCH=ISIGN(1,IFEBCH)*MAXFLK
000183      00    3105  NEWFBA=NOWFBA+IFEBCH
000184      00          CALL PAK (FEBA(INDEX),LOVER,BTFEBA,NEWFBA)
000185      00            LOVER=LOVER+BTFEBA
000186      00     3100 CONTINUE
000187      00     3101 CALL CINDEX (ILO,BTFEBM,INDEX,LOVER)
000188      00          DO 3200 I=ILO,IHI
000189      00            CALL PIK (FEBM(INDEX),LOVER,BTFEBM,IVAL)
000190      00            VALUE=FLOAT(IVAL)/FMSCAL-FMBIAS
000191      00            VALUE=OMEGA*FLOAT(IFEBCH)+(1.-OMEGA)*VALUE
000192      00            XVAL=(VALUE+FMBIAS)
000193      00            IVAL=XVAL*FMSCAL + .001
000194      00            IVAL=MIND (MXFEBM,MAXO (IVAL,0))
000195      00            CALL PAK (FEBM(INDEX),LOVER,BTFEBM,IVAL)
000196      00            LOVER=LOVER+BTFEBM
000197      00     3200 CONTINUE
000198      00     3800 LSSFBA=NOWFBA
000199      00    C
000200      00    C----------CHECK FOR END OF WAR (FEBA ENDPOINT REACHED)
000201      00    C     NEXT 8 LINES CANCELED TO KEEP SIMULATION FROM STOPPING, JAN 79
000202      00    C       J1=(ILO-1)/100+1
000203      00    C       J2=(IHI-1)/100+1
000204      00    C       DO 3300 I=J1,J2
000205      00    C         IF ((NEWFBA.GT.NDPNT(1,I)).AND.(NEWFBA.LT.NDPNT(2,I)))
000206      00    C     *             GO TO 3300
000207      00    C         EOWSW=1
000208      00    C         GO TO 9999
000209      00    C3300 CONTINUE
000210      00    C
000211      00    C----------EXIT
000212      00     9999 RETURN
```

```
000213       00          END

END ELT.


@MDG,P  ******  ARESQ/HL  ******


@ELT,L 7SPRINT1.ARESQ/HL
ELT007 S73R1A 02/27/79 14119133 (0,)
000001       00          COMPILER (XM=1)
000002       00          SUBROUTINE ARESQ
000003       00            INCLUDE PROC
000004       00    C
000005       00    C  THIS SUBROUTINE ADDS THE REQUIREMENTS FOR RESUPPLY FOR ALL BLUE
000006       00    C    ARMY RESERVE UNITS TO THEATER TOTALS
000007       00    C
000008       00    C
000009       00          COMMON/TRQMNS/RQMNTS(54,2)
000010       00          COMMON/TRQMNX/RQMNTX(5,3)                    @CAA JAN 76 GOLUB
000011       00          COMMON/USC   / IUS(70)                       @CAA JAN 76 GOLUB
000012       00          COMMON/BARM/NBARMY,BARMY(8)
000013       00    C
000014       00    C           ********@** WEAK ON-LINE DIVISION DATA **********
000015       00    C
000016       00    C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000017       00          COMMON/IWKDVS/ IDEFSW,MARGIN,IPQLMX,WOLDTH,LISTRL(9,6),LISTLC(6),
000018       00         *              RPOOL(9,3,6),RPOOLC(6)
000019       00          INTEGER RPOOLC
000020       00            INTEGER RPOOL
000021       00          REAL MARGIN
000022       00    C
000023       00    C  IDEFSW = DEFENSE SWITCH
000024       00    C
000025       00    C  RPOOL(4,3,6)
000026       00    C           LIST OF REPLACEMENT DIVS
000027       00    C           4 = DIV INDEXES
000028       00    C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000029       00    C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000030       00    C           6 = PARENT ARMY HQ
000031       00    C  RPOOLC(6)
000032       00    C           COUNT OF ARMY RESERVE DIVS
000033       00    C
000034       00    C
000035       00            INCLUDE BTBDV
000036       00            INCLUDE BTBDE
000037       00    C
000038       00    C
000039       00          IF (IDEFSW.LE.0) RETURN
000040       00          DO 1000 I=1,NBARMY
000041       00          IF (RPOOLC(I).LE.0) GO TO 1000
000042       00          ICOUNT=RPOOLC(I)
000043       00          DO 900 J=1,ICOUNT
000044       00          IDIV=RPOOL(J,1,I)
000045       00          IF((IDIV.GT.0.AND.IDIV.LE.70) GO TO 44
000046       00          RETURN 0
000047       00     44   CONTINUE
```

```
@HDG,P •••••• ARMART ••••••

@ELT,L 75PRINT1.ARMART
ELT007 S73R1A 02/27/79 14:19:34 (5,)
000001       01              COMPILER (XM=1)
000002       01              SUBROUTINE ARMART(IDIV)
000003       01    C     SUBROUTINE TO REMOVE ARTY PERSONNEL, AMMO, & TUBES FROM BLUE ARTY
000004       01    C      BN IDIV AND PLACE INTO NON-DIV GS ARTY ARRAY
000005       01    C
000006       01              INCLUDE PROC
000007       01    C
000008       01              COMMON/USC/IUS(70)
000009       01              COMMON/ARTDAT/IARTYP(2),ALNGS(33,2)
000010       04              COMMON/ARTFP/AVGSAR(4,2),ARTYFP(15,4,2),SARTB(8)
000011       01              INTEGER SARTB
000012       01    C
000013       01              IND = IDIV
000014       01    C
000015       01              IFLAG = 1 +(IDIV -1)/4
000016       01              IFLAG = IUS(IFLAG)
000017       01              IPOINT = 21 +4*(IFLAG -1)
000018       01    C
000019       01    C     TRANSFER PERSONNEL & AMMO
000020       01    C
000021       01              DO 20 I=1,4
000022       01              ALNGS(I,1) = ALNGS(I,1) +ARTSTA(I,IND)
000023       01              ALNGS(IPOINT +I,1) = ALNGS(IPOINT +I,1) +ARTSTA(I,IND)
000024       05              ARTSTA(I,IND) = 0.
000025       01           20 CONTINUE
000026       01    C
000027       01    C      REMOVE TUBES!
000028       01              DO 30 I=5,11,3
000029       01              IF(ARTSTA(I,IND) .LE. 0.) GO TO 30
000030       01              ITYPE = ARTSTA(I,IND) +0.5
000031       01              IPOINT = 5 +2*(ITYPE -1)
000032       01    C      AUTHORIZED!
000033       01              ALNGS(IPOINT,1) = ALNGS(IPOINT,1) + ARTSTA(I+1,IND)
000034       01    C      ON HAND!
000035       01              ALNGS(IPOINT+1,1) = ALNGS(IPOINT+1,1) + ARTSTA(I+2,IND)
000036       05              ARTSTA(I+1,IND) = 0.
000037       05            ARTSTA(I+2,IND) = 0.
000038       01           30 CONTINUE
000039       01    C
000040       01    C     RECOMPUTE AVERAGE GS ARTY BN FP TO USE IN ESTIMATION!
000041       01              ITYPE = ARTSTA(14,IND) +0.5
000042       01              DO 40 I=1,4
000043       04            AVGSAR(I,1)=(ALNGS(21,1)*AVGSAR(I,1)+ARTYFP(ITYPE,I,1))/(ALNGS(21,1)+1)
000044       04           * 1) +1)
000045       01           40 CONTINUE
000046       01    C
000047       01              ALNGS(21,1) = ALNGS(21,1) +1
000048       01              SARTB(ITYPE) = SARTB(ITYPE) +1
000049       01    C
000050       01              RETURN
000051       01              END

•••••• ARESQ/HL ••••••
```

```
END ELT.


@HDG,P  ••••••  ARMMOD/REDMOV  ••••••


@ELT,L 75PRINTI,ARMMOD/REDMOV
ELT007 573RIA 02/27/79 14:19:35 (3,)
000001       00          COMPILER (XM = 1)
000002       00    C     OVERLAY(ARMY,3,0)                    @27JUL73DOC
000003       00          SUBROUTINE ARMMOD                    @27JUL73DOC
000004       00    C
000005       00            INCLUDE PROC
000006       00    C---------ARMY CYCLE CONTROL ROUTINE
000007       00    C
000008       00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC,IWARTM,IDPT,IDPC,ICPA,IAPT
000009       00          COMMON/BARM/NBARMY,BARMY(14)       @23OCT73 ALLISON
000010       00          COMMON/RARM/NRARMY,RARMY(27)       @23OCT73 ALLISON
000011       00          COMMON/BCORP/NBCORP,BCORPS(82)     @23OCT73 ALLISON
000012       00          COMMON/RCORP/NRCORP,RCORPS(164)    @23OCT73 ALLISON
000013       00          COMMON/REINFD/NARIFP,MXRIFP,BTRFEE,RFDVB(20),RFDVR(20)
000014       00          INTEGER BTRFEE
000015       00          COMMON/MODEL/IDMOD
000016       00          COMMON/IOUNIT/I01,I02,I06,I09
000017       00          DIMENSION MINI(334,3)
000018       00    C           •••••••••••OO WEAK ON-LINE DIVISION DATA ••••••••••••
000019       00    C
000020       00    C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000021       00          COMMON/IWKDVS/ IDEFSW,MARGIN,IPQLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000022       00         •               RPOOL(9,3,6),RPOOLC(6)
000023       00    C     NEXT 2 LINES ADDED TO ASSIGN BLUE/RED DIVS FROM ARMY POOL, 1/79
000024       00            COMMON/IREPL/RPOOLR(9,3,11),RPOLRC(11)
000025       00          INTEGER RPOOLR,RPOLRC,RPOOL,RPOOLC
000026       00    C     INTEGER RPOOLC,RPOOL      @CANCELLED (NOT NEEDED) AUG 78
000027       00          REAL MARGIN
000028       00          COMMON/REA/KELLOG
000029       00    C  KELLOG=SWITCH (INDEX OF PARENT ARMY HDQ.) NON-ZERO WHEN A RESERVE
000030       00    C  CORPS IS COMMITTED TO THE FRONT DURING A CORPS CYCLE...
000031       00    C A NEGATIVE VALUE=INDEX OF RED ARMY HDQ
000032       00    C  APOSITIVE VALUE=INDEX OF BLUE ARMY HDQ.
000033       00          EQUIVALENCE (MINIA,MINI)
000034       00    C
000035       00    C---------SET MODEL ID
000036       00          IDMOD=3
000037       00          IF (KELLOG.GT.0) GO TO 1090
000038       00          IF (KELLOG.EQ.0) GO TO 50
000039       00    C  RED RESERVE COPRS HAS BEEN COMMITTED DURING CORPS CYL EXECUTION,,
000040       00    C  REALLOCATE GS AND CAS TO CORPS IN THIS ARMY HDQ....
000041       00          GO TO 500
000042       00    C
000043       00    C---------INCREMENT CYCLE COUNTER
000044       00    50    NACYC=NACYC+1
000045       00          NARIFP=NARIFP+1
000046       00    C
000047       02    C     NEXT LINE ADDED FOR MOVEMENT OF RESERVES, JAN 79
000048       02          CALL FLEX(NRARMY,RARMY,2,RPOOLR,RPOLRC,RCORPS)
000049       00    C---------ASSIGN DIVISIONS AND ESTIMATE SITUATION FOR RED ARMIES
```

```
000050  00          CALL ASNRDV (NRARMY,RARMY,NRCORP,RCORPS,2)
000051  00          WRITE (104,9000)
000052  00    C9000 FORMAT (1HI)
000053  00     9000 FORMAT (1HD)
000054  01    C     NEXT  LINE ADDED TO ASSIGN RED DIVS FROM ARMY POOL, 1/79
000055  01          CALL ASREIN(NRARMY,RARMY,2,RPOOLR,RPOLRC,RCORPS,NRCORP)
000056  00    500   CALL ESTIMA (NRARMY,RARMY,RCORPS,2)
000057  00          IF (KELLOG.NE.0) RETURN
000058  00    C
000059  02    C     NEXT LINE ADDED FOR MOVEMENT OF RESERVES, JAN 79
000060  02          CALL FLEX(NBARMY,BARMY,1,RPOOL,RPOOLC,BCORPS)
000061  00    C----------ASSIGN DIVISIONS AND ESTIMATE SITUATION FOR BLUE ARMIES
000062  00          CALL ASNRDV (NBARMY,BARMY,NBCORP,BCORPS,1)
000063  00    C
000064  00    C     SCAN LIST OF WEAK ON-LINE DIVS FOR POSSIBLE REPLACEMENT  BWK 29
000065  00    C
000066  00          IF(IDEFSW.GT.0) CALL EXAMIN                              BWK 30
000067  00    C
000068  03    C     NEXT  LINE ADDED TO ASSIGN BLUE DIVS FROM ARMY POOL, 1/79
000069  03          CALL ASREIN(NBARMY,BARMY,1,RPOOL,RPOOLC,BCORPS,NBCORP)
000070  00    1000  CALL ESTIMA (NBARMY,BARMY,BCORPS,1)
000071  00          IF (KELLOG.NE.0) RETURN
000072  00    C
000073  00    C
000074  00    C----------WRITE ARMY SUMMARY DATA TO OUTPUT TAPE
000075  00          CALL ARMRPT
000076  00    C
000077  00    C----------RESET MINISECTOR HISTORY POINTER AND ARRAY
000078  00          NEWPDA=NOWPDA+1
000079  00          IF (NEWPDA.GT.MXPDA) NEWPDA=1
000080  00          DO 3000 I=1,334
000081  00            MINI(I,NEWPDA)=MINI(I,NOWPDA)
000082  00     3000 CONTINUE
000083  00          NOWPDA=NEWPDA
000084  00          IF (NARIFP.EQ.MXRIFP) NARIFP=0
000085  00    C
000086  00    C----------EXIT
000087  00          RETURN
000088  00          END

END ELT.


@HDG,P  •••••• ASNBD/HL ••••••


@ELT,L 75PRINT1.ASNBD/HL
ELT007 573RIA 02/27/79 14:19:37 (0,)
000001  00          COMPILER (XM = 1)
000002  00          SUBROUTINE ASNBD (ICORPS,IMSN,IRUST)
000003  00            INCLUDE PROC
000004  00    C
000005  00    C----------ROUTINE TO ADD A BLUE REINFORCING DIVISION TO ICORPS
000006  00    C
000007  00          COMMON/ALNIFP/ENIFP(2),FIFP
000008  00    C     NEXT LINE ADDED TO PREVENT REINFORCING BORDER DIV, OCT 78
000009  00          COMMON/BORDIV/INFORT(70)

•••••• ARMMOD/REDMOV ••••••
```

```
000067  00      *   /,15X,'RESERVE DIV',I3,' ICRRT',I3,' NDIX',I3)
000068  00       INDEXE=INDEN(IMSN+1)
000069  00       DRFPMX=0.
000070  00       IDIVA=0
000071  00       DFHIFP=0.
000072  00       LOVER=LOVERC+BSCRD(
000073  00       DO 3000 I=1,NDIX
000074  00       IF (I.EQ.IRDIV) GO TO 2101
000075  00         CALL PIK (BCORPS(INDEXC),LOVER,BLCRD(,IDIV)
000076  00  C    NEXT LINE ADDED TO PREVENT REINFORCING BORDER DIV, OCT 78
000077  00       IF(INFORT(IDIV) .NE. 0) GO TO 2101
000078  00         CALL CINDEX (IDIV,BTBYTE,INDEXD,LOVERD)
000079  00         CALL PIK (BDIV(INDEXD),LOVERD+BSBVLM,BLBVLM,ML)
000080  00         CALL PIK (BDIV(INDEXD),LOVERD+BSBVHM,BLBVHM,MH)
000081  00         CALL BDIFP (IDIV,IMSN)
000082  00         CALL RTVFPA (ML,MH,1)
000083  00         EIFP=ENIFP(INDEXE)
000084  00         IF  (IMSN.EQ.2) GO TO 2100
000085  00         IF  (FIFP.EQ.0.) GO TO 2300
000086  00         DRIFP=EIFP/FIFP
000087  00         GO TO 2200
000088  00  2100   IF (EIFP.EQ.0.) GO TO 2300
000089  00         DRIFP=FIFP/EIFP
000090  00         GO TO 2200
000091  00  2300   DRIFP=10000.
000092  00  2200   IF (DRIFP.LE.DRFPMX) GO TO 2000
000093  00         DRFPMX=DRIFP
000094  00         IDIVA=I
000095  00         MNSTRT=ML
000096  00         MNSTOP=MH
000097  00  2000  IF ((2*MMSDV8).GT.(MH-ML+1)) GO TO 2101
000098  00  C  SAVE DIV W/ HIGHEST IFP RATIO ATK/DEF  AND FRONTAGE TO HALF
000099  00       IF (DRIFP.LE.DFHIFP) GO TO 2101
000100  00       ISEL=I
000101  00       DFHIFP=DRIFP
000102  00       ISELL=ML
000103  00       ISELH=MH
000104  00  2101  LOVER=LOVER+BLCRD(
000105  00   3000 CONTINUE
000106  00       IPOSN=0
000107  00       IF (ISEL.EQ.IDIVA) GO TO 4100
000108  00  C
000109  00  C  CAN ANY FRONTLINE DIV ACCEPT THIS RES DIV
000110  00  C
000111  00       IF (ISEL.EQ.0) GO TO 3770
000112  00  C  YES ISEL=DIV WITH ADEQUATE FRONTAGE
000113  00  C
000114  00       IDIVA=ISEL
000115  00       MNSTRT=ISELL
000116  00       MNSTOP=ISELH
000117  00       GO TO 4100
000118  00  C  NO DIV CAN ACCOMMODATE REINFORCING DIV BY HALF OF FRONTAGE AND
000119  00  C  STILL MAINTAIN MINIMUM FRONTAGE RULE
000120  00  C  NEED TO REALLOCATE ALL DIVS IN CORPS SUCH THAT EACH HAS EQUAL FRNT
000121  00  C
000122  00   3770 WRITE(106,902)
000123  00   902  FORMAT(8X,'NO EXISTING DIV IN THIS CORPS CAN SHARE HALF',
```

```
END ELT.

@HDG,P  ••••••  ASNRDV/MXFRNT  ••••••

@ELT,L 7SPRINT1.ASNRDV/MXFRNT
ELT007 S73R1A 02/27/79 14:19:39 (10,)
000001        06          COMPILER (XM = 1)
000002        06          SUBROUTINE ASNRDV (NARMY,ARMY,NCORPS,CORPS,ISIDE)
000003        06            INCLUDE PROC
000004        06          DIMENSION ARMY(1),CORPS(1)
000005        06    C
000006        06    C---------360 PROGRAMMERS NOTE - SUBROUTINE CARD ABOVE SHOULD BE
000007        06    C               REPLACED BY THE FOLLOWING -
000008        06    C     SUBROUTINE ASNRDV (/NARMY/,ARMY,/NCORPS/,CORPS,ISIDE)
000009        06    C
000010        06    C---------CONTROL ROUTINE FOR ASSIGNMENT OF REINFORCING DIVISIONS
000011        06    C
000012        06    C            •••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000013        06    C
000014        06          COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000015        06         •                RPOOL(9,3,6),RPOOLC(6)
000016        06          INTEGER RPOOLC
000017        06            INTEGER RPOOL
000018        06          REAL MARGIN
000019        06    C
000020        06    C  IDEFSW = DEFENSE SWITCH
000021        06    C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000022        06    C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000023        06    C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000024        06    C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000025        06    C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000026        06    C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000027        06    C
000028        06    C  LISTPL(9,6)
000029        06    C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000030        06    C           4 = DIV INDEXES OF WEAK DIVS
000031        06    C           6 = PARENT ARMY HQ
000032        06    C  LISTLC(6)
000033        06    C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000034        06    C  RPOOL(9,3,6)
000035        06    C           LIST OF REPLACEMENT DIVS
000036        06    C           4 = DIV INDEXES
000037        06    C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000038        06    C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000039        06    C           6 = PARENT ARMY HQ
000040        06    C  RPOOLC(6)
000041        06    C    NEXT LINE ADDED FOR RED ARMY RESERVE POOL, DEC 78
000042        06           COMMON/IREPL/IPOOLR(9,3,11),IPOOLC(11)
000043        06    C           COUNT OF ARMY RESERVE DIVS
000044        06          COMMON/WHOAMI/ IAMWHO(3)                          @WK 232
000045        06    C
000046        06          COMMON/AENIFP/ENIFP(2),FIFP
000047        06    C     NEXT 2 LINES ADDED TO PREVENT REINFORCING A BORDER DIV, SEP 78
000048        06           INCLUDE BTBDV
000049        06           COMMON/BORDIV/INFORT(70)
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000164   06          IND2 = IND2 +3
000165   06          IND3 = IND2 +2
000166   06          IND4 = ARTSTA(IND2,INDA) +45.1
000167   06          DAVAIL(IND4,2) = DAVAIL(IND4,2) +ARTSTA(IND3,INDA)
000168   06      210 ARTSTA(IND3,INDA) = 0.
000169   06          GO TO LABLE
000170   06      230 CONTINUE
000171   06          CALL PKSTFL(IUNT,2)
000172   06          CALL PAK(RDIV(INDEX),LOVER+BSRVST,BLRVST,0)
000173   06          DO 290 IK=1,5
000174   06      290 RDHEL(IK,IUNT) = 0.
000175   06    C     PRINT 1750,IUNT,DCMATD(IDEC,2),(DAVAIL(IK,2),IK=1,54),
000176   06    C    * (STAFIL(IK,2),IK=1,139)
000177   06    C1750 FORMAT(' **DEACTIVATE DEC DIV',215,10X,'THEATER STOCKS:',5(/20X,
000178   06    C    *10F10.1)/20X,'F10.1,10X,'DIV STATUS FILE:'/(20X,10F10.1))
000179   06    143   CONTINUE              @ FEB 76  USAREUR
000180   06          GO TO 100
000181   06    C UNIT IS STRONG ENOUGH AND CAN BE RELEASED
000182   06       43 IAARMY=DCMATD(IDEC,2)
000183   06          NRNDV=1
000184   06          ITEST=DCMATD(IDEC,1)
000185   06    C  PURGE DECIMATION FILE OF THIS UNIT
000186   06          DO 28 JI=IDEC,DCMATC
000187   06          IF (IDEC.EQ.DCMATC) GO TO 28
000188   06          DCMATD(JI,1)=DCMATD(JI+1,1)
000189   06          DCMATD(JI,2)=DCMATD(JI+1,2)
000190   06          DCMATD(JI,3)=DCMATD(JI+1,3)
000191   06    28    CONTINUE
000192   06          DCMATD(DCMATC,1)=0
000193   06          DCMATD(DCMATC,2)=0
000194   06          DCMATD(DCMATC,3)=0
000195   06          DCMATC=DCMATC-1
000196   06          JOK=IDEC
000197   06    C
000198   06    C     NEXT 15 LINES ADDED FOR RED ARMY RESERVE POOL, FEB 79
000199   10          IST = IAARMY
000200   10          IND = IAARMY
000201   10          IOLDHQ = IAARMY
000202   10    C
000203   10    C     DOES IAARMY HAVE ADEQUATE FRONTAGE TO ACCEPT DIV IF COMMITTED?
000204   10    C     DOES IAARMY HAVE ROOM IN RESERVE POOL FOR ANOTHER DIV?
000205   10    C
000206   10       91 DO 98 IAARMY=IST,IND
000207   10    C     CAN RESERVE POOL ACCEPT ANOTHER DIV?
000208   10          NDIVA = IPOOLC(IAARMY) +1
000209   10          IF(NDIVA .GT. IPOLMX) GO TO 98
000210   10    C     YES, IS THERE ADEQUATE FRONTAGE?
000211   06             CALL CINDEX (IAARMY,BTAREE,INDEXA,LOVERA)
000212   06             CALL PIK (ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORP)
000213   06             CALL PIK (ARMY(INDEXA),LOVERA+BSARLM,BLARLM,MINILA)
000214   06             CALL PIK (ARMY(INDEXA),LOVERA+BSARHM,BLARHM,MINIHA)
000215   06          LOVRAI = LOVERA +BSARCI
000216   07          DO 206 I=1,NCORP
000217   06              CALL PIK (ARMY(INDEXA),LOVRAI,BLARCI,ICORPS)
000218   06              LOVRAI=LOVRAI+BLARCI
000219   06          CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)
000220   06            CALL PIK (CORPS(INDEXC),LOVERC+BSCHND,BLCHND,NDIV)
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000221  07      206 NDIVA = NDIVA +NDIV
000222  10          IF(MM5DIV*NDIVA .LE. MINIMA+1-MINILA) GO TO 217
000223  10  C    NOT ENOUGH FRONTAGE.  LOOK AT ALL ARMIES;
000224  10       98 CONTINUE
000225  10          IF(IST .NE. IND .OR. NARMY .EQ. 1) GO TO 99
000226  10  C     EXAMINE ALL ARMIES;
000227  10          IST = 1
000228  10          IND = NARMY
000229  10          GO TO 91
000230  10       99 IAARMY = IOLDHQ
000231  10          GO TO 49
000232  08  C     NEXT 6 LINES MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000233  08  C   TURN REBUILT RED DIV OVER TO RED ARMY (IAARMY) RESERVE POOL;
000234  08  C
000235  10      217 IC = IPOOLC(IAARMY)
000236  10          IPOOLR(IC+1,1,IAARMY) = ITEST
000237  06          IPOOLC(IAARMY) = IPOOLC(IAARMY) +1
000238  06          GO TO 1
000239  06  100     CONTINUE
000240  06  C
000241  06  C----------CHECK NUMBER OF ARRIVING DIVISIONS
000242  06  2000    CALL CINDEX(NARIFP,BTE,INDEX,LOVER)
000243  06          ITEST=0
000244  06          INDEX=INDEX+20*(ISIDE-1)
000245  06          CALL PIK (RFDV(INDEX),LOVER,BTRFEE,IAARMY)
000246  06          LOVER=LOVER+BTRFEE
000247  06          CALL PIK (RFDV(INDEX),LOVER,BTRFEE,NRNDV)
000248  06          IF (NRNDV.EQ.0) GO TO 9999
000249  06          ISECTM=0
000250  06  C   IF THESE ARRIVING DIVISIONS ARE NOT ASSIGNED TO AN ARMY
000251  06  C   HEADQUARTERS ASSIGNED ON BASIS OF CORPS W/HIGHEST IFP RATIO AT/DF
000252  06          IF (IAARMY.EQ.0) GO TO 500
000253  06          IF (IAARMY.GT.NARMY) PRINT 155,IAARMY,NARMY
000254  06       155 FORMAT(1HO,' **** ARRIVING DIVISION(S) MARKED FOR ARMY',I3,
000255  06         * ' BUT NO. OF ARMIES=',I3,', SCHEDULE IGNORED')
000256  06          IF (IAARMY.GT.NARMY) GO TO 500                    @ARTY74   79
000257  06  C    IF THESE ARRIVING DIVISIONS ARE ASSIGNED TO A ARMY HEADQUARTERS
000258  06  C   ASSIGN THEM TO THAT ARMY
000259  06          IF (NARMY.EQ.1) GO TO 500
000260  06  49      IASGN=IAARMY
000261  06          IRNGE=IAARMY
000262  06  C   SET ALL CORPS TO RESERVE (DUMMY) SO ONLY CORPS PROCESSED IN ASSIGNED
000263  06  C   ARMY ARE CONSIDERED AS CANIDATES TO RECEIVE REINFORCING DIV(S)
000264  06          DO 5174 IB=1,NCORPS
000265  06          ICDATA(2,IB)=3
000266  06  5174    CONTINUE
000267  06          WRITE (106,5170) IAARMY
000268  06  5170    FORMAT (1H ,'REINFORCING DIVS ASSIGNED TO ARMY',I3)
000269  06          GO TO 520
000270  06  500     IASGN=1
000271  06          IRNGE=NARMY
000272  06  C
000273  06          IF(ISECTM.EQ.0) GO TO 520                        @WK 234
000274  06          WRITE(106,7500)                                    @WK 235
000275  06          NRNDV=NRNDV+1                                    @WK 236
000276  06       7500 FORMAT(1H ,'UNABLE TO ASSIGN REINF DIV TO SPECIFIED HQ')
000277  06  C
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000278  06  C     IF (ISECTM.NE.0) WRITE (106,7500)
000279  06  C      IF (ISECTM.NE.0) NRNDV=NRNDV+1
000280  06  C
000281  06  C---------PROCESSING BY ARMY
000282  06  520    DO 3000 JARMY=IASGN,IRNGE
000283  06             CALL CINDEX (JARMY,BTARLE,INDEXA,LOVERA)
000284  06             CALL PIK (ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORP)
000285  06             CALL PIK (ARMY(INDEXA),LOVERA+BSARRC,BLARRC,IRCORP)
000286  06  C     NEXT 13 LINES ADDED FOR TOO MANY DIVS PER ARMY, AUG 78
000287  06             CALL PIK (ARMY(INDEXA),LOVERA+BSARLM,BLARLM,MINILA)
000288  06             CALL PIK (ARMY(INDEXA),LOVERA+BSARHM,BLARHM,MINIHA)
000289  06            NOROOM = 0
000290  06  C     NEXT 3 LINES MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000291  06            IF ((IRCORP.EQ.0 .AND. ISIDE.EQ.1) GO TO 528
000292  06            NDIVA = 0
000293  06            IF (ISIDE .EQ. 2) NDIVA = IPOOLC(JARMY)
000294  06            LOVRAI = LOVERA +BSARCI
000295  06            DO 526 I=1,NCORP
000296  06                CALL PIK (ARMY(INDEXA),LOVRAI,BLARCI,ICORPS)
000297  06                LOVRAI=LOVRAI+BLARCI
000298  06            CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)
000299  06              CALL PIK (CORPS(INDEXC),LOVERC,BSCRND,BLCRND,NDIV)
000300  06      526 NDIVA = NDIVA +NDIV
000301  06            IF(MMSDIV*(NDIVA+1) .GT. MINIHA+1-MINILA) NOROOM = 1
000302  06      528   NARCR(JARMY)=NCORP
000303  06            LOVERA=LOVERA+BSARCI
000304  06  C
000305  06  C---------PROCESSING BY CORPS WITHIN ARMY
000306  06  C
000307  06  C  TEST FOR REINFORCING DIVISION BEING ASSIGNED DIRECTLY TO CORPS HDQ,
000308  06  C  IF ONLY ONE ARMY ON SIDE ISIDE
000309  06  C
000310  06          ICSTRT=1
000311  06           ICRNGE=NCORPS
000312  06  C  IF ONLY ONE ARMY AND REINFORCING DIV ASSIGNED TO CORPS SET IT
000313  06          IF (NARMY.NE.1) GO TO 7505
000314  06          IF (IAARMY.EQ.0) GO TO 7505
000315  06  C  REINFORCING DIV IS ASSIGNED TO A SPECIFIC CORPS HDQ.  HAVE WE
000316  06  C  ALREADY UNSUCCESSFULLY ATTEMPTED THIS ASSIGNMENT
000317  06          IF ((ISECTM.NE.0) GO TO 7505
000318  06  C
000319  06          ICSTRT=IAARMY
000320  06          ICRNGE=IAARMY
000321  06          WRITE (106,7502) IAARMY
000322  06  7502    FORMAT (1H ,'ASSIGNING REINFORCING DIV TO CORPS',I3)
000323  06  7505    DO 3100 I=1,NCORP
000324  06                CALL PIK (ARMY(INDEXA),LOVERA,BLARCI,ICORPS)
000325  06                LOVERA=LOVERA+BLARCI
000326  06                ICDATA(1,ICORPS)=JARMY
000327  06  C     NEXT LINE MODIFIED FOR TOO MANY DIVS PER ARMY, AUG 78
000328  06                IF (I.NE.IRCORP .AND. NOROOM.EQ.0) GO TO 2100
000329  06                ICDATA(2,ICORPS)=3
000330  06                GO TO 3100
000331  06  C
000332  06  C---------CALCULATE CRIFP FOR ONLINE CORPS AND SAVE DATA IN CDATA/ICDATA
000333  06   2100         CALL CINDEX (ICORPS,BTCREE,INDEXC,LOVERC)
000334  06                CALL PIK (CORPS(INDEXC),LOVERC+BSCHLM,BLCHLM,MNSTRT)
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000335  06            CALL PIK (CORPS(INDEXC),LOVERC+BSCRHM,BLCRHM,MNSTOP)
000336  06            ICDATA(3,ICORPS)=MNSTRT
000337  06            ICDATA(4,ICORPS)=MNSTOP
000338  06            CALL PIK (CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000339  06          IF (NDIV.LT.MXDPC) GO TO 2113
000340  06          IF ((ITEST.NE.0.AND.IASGN.EQ.IRNGE) GO TO 2311
000341  06    C  IF REBUILT RED DIV AND CORPS HAS MXDPC DIVISION IN CORPS
000342  06    C  SELECT ANOTHER CORPS IN ARMY
000343  06    C  IF NO CORPS IN ARMY CAN SATISFY
000344  06    C            A.  MIN FRONTAGE
000345  06    C            B.  MAX DIV / CORPS
000346  06    C  SET ARMY RANGE IN DO LOOP SUCH THAT ALL ARMIES ARE CANDIDATES FOR
000347  06    C  REC REBUILT DIVISION
000348  06    C  IF ALL ARMIES  ARE CANDIDATES  ANY CORPS WITH ADEQUATE FRONTAGE
000349  06    C  (REGARDLESS OF QUANT OF DIVS) CAN ACCEPT DIV... THIS WILL CAUSE
000350  06    C  CREATION OF NEW CORPS.....JES.....
000351  06    C2113 IF((MMSDIV*(NDIV+1))-LE.(MNSTOP-MNSTRT+1))GO TO 2200 BC 9/78 M/L
000352  06    C     NEXT 28 LINES ADDED TO AVOID REINFORCING BORDR DIV, SEP 78
000353  06     2113 IF ((MMSDIV*(NDIV+1))-GT.(MNSTOP-MNSTRT+1)) GO TO 2311
000354  06    C     BLUE ONLY
000355  06           IF(ISIDE .EQ. 2) GO TO 2200
000356  06           CALL PIK(CORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,IRDIV)
000357  06           IF(IRDIV .EQ. 0) GO TO 2200
000358  06    C
000359  06    C     TEST FOR BORDER DIV(S) IN CORPS - IF PRESENT,
000360  06    C      CAN CORPS ACCEPT REINFORCING DIV?
000361  06    C
000362  06           DO 2109 IK=1,NDIV
000363  06           CALL PIK(CORPS(INDEXC),LOVERC+BSCRDI,BLCRDI,IDIV)
000364  06           LOVERC = LOVERC +BLCRDI
000365  06           IF(IK.EQ.IRDIV) GO TO 2109
000366  06    C     IS THIS A BORDER DIV?
000367  06           IF(INFORT(IDIV) .NE. 0) GO TO 2109
000368  06    C
000369  06    C     NORMAL.  GET FRONTAGE.
000370  06    C
000371  06           CALL CINDEX(IDIV,BTBVTE,INDEXD,LOVERD)
000372  06           CALL PIK(BDIV(INDEXD),LOVERD+BSBVLM,BLBVLM,ML)
000373  06           CALL PIK(BDIV(INDEXD),LOVERD+BSBVHM,BLBVHM,MH)
000374  06    C
000375  06    C     CAN THIS NON-BORDER DIV HALVE ITS FRONTAGE TO
000376  06    C      ACCOMODATE A REINFORCING DIV?
000377  06    C
000378  06           IF(((MH -ML +1)/2) .GE. MMSDIV) GO TO 2200
000379  06    C
000380  06     2109 CONTINUE
000381  06    C     CORPS CANNOT TAKE A REINFORCING DIV.
000382  06    C  FAKE CORPS TO APPEAR AS IN RESERVE SO AS TO NOT BE CONSIDERED
000383  06    C  FOR REINFORCEMENT
000384  06     2311  ICDATA(2,ICORPS)=3
000385  06           GO TO 3100
000386  06     2200  MINICX(1,I)=MNSTRT
000387  06           MINICX(2,I)=MNSTOP
000388  06           CALL PIK (CORPS(INDEXC),LOVERC+BSCRMS,BLCRMS,MSNAR)
000389  06           ISVRC=IRCORP
000390  06           IRCORP=0
000391  06           ICORP(I)=ICORPS
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000392  06            CALL CALAFP (CDATA(5,ICORPS),1,ISIDE)
000393  06            IRCORP=ISVRC
000394  06              ICDATA(2,ICORPS)=MSNAR
000395  06              INDEXE=INDEN(MSNAR+1)
000396  06              CDATA(6,ICORPS)=FIFP
000397  06              CDATA(7,ICORPS)=ENIFP(INDEXE)
000398  06     3100   CONTINUE
000399  06     3000 CONTINUE
000400  06    C
000401  06    C---------ASSIGN REINFORCING DIVISIONS ONE AT A TIME
000402  06    4000   IF (ITEST.NE.0) GO TO 99
000403  06           IF (NRNDV.EQ.0) GO TO 9999
000404  06           NRNDV=NRNDV-1
000405  06    C
000406  06    C---------SELECT RECEIVING CORPS
000407  06    99     IPRISW=-1
000408  06           ICORPS=0
000409  06           CALL REINFP(ISIDE,ATEMP)
000410  06           DO 3200 I=ICSTRT,ICRNGE
000411  06             IF (ICDATA(2,I).EQ.3) GO TO 3200
000412  06             CALL CINDEX (I,BTCREE,INDEXC,LOVERC)
000413  06             CALL PIK (CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000414  06             MINIWD=ICDATA(4,I)-ICDATA(3,I)+1
000415  06             IF (MINIWD.GE.(MMSDIV*(NDIV+1))) GO TO 2300
000416  06             ICDATA(2,I)=3
000417  06             GO TO 3200
000418  06     2300 CDAT=CDATA(5,I)+ATEMP
000419  06             IF (ICDATA(2,I)-1) 4101,4102,4103
000420  06    C
000421  06    C---------CORPS IS DELAYING - TOP PRIORITY FOR REINFORCEMENT
000422  06     4101    IF (IPRISW.NE.0) GO TO 4110
000423  06             IF (CDAT.LE.CRIFP) GO TO 3200
000424  06     4110    IPRISW=0
000425  06             GO TO 4100
000426  06    C
000427  06    C---------CORPS IS DEFENDING - LEAST PRIORITY FOR REINFORCEMENT
000428  06     4102    IF ((IPRISW.EQ.0).OR.(IPRISW.EQ.2)) GO TO 3200
000429  06             IF (IPRISW.LT.0) GO TO 4120
000430  06             IF (CDAT.LE.CRIFP) GO TO 3200
000431  06     4120    IPRISW=1
000432  06             GO TO 4100
000433  06    C
000434  06    C---------CORPS IS ATTACKING - MIDDLE PRIORITY FOR REINFORCEMENT
000435  06     4103    IF (IPRISW.EQ.0) GO TO 3200
000436  06             IF (IPRISW.NE.2) GO TO 4130
000437  06             IF (CDAT.LE.CRIFP) GO TO 3200
000438  06     4130    IPRISW=2
000439  06     4100    CRIFP=CDAT
000440  06             ICORPS=I
000441  06     3200 CONTINUE
000442  06    C     NEXT 10 LINES MODIFIED TO ALLOW ASSIGNMENT TO ARMY RESERVE, 10/78
000443  06           IF ((ICORPS.NE.0.OR.ISECTM.EQ.0) GO TO 403
000444  06           IF((IDEFSW.EQ.0 .OR. ISIDE.EQ.2) GO TO 402
000445  06           DO 401 IARM=1,NARMY
000446  06           IF(RPOOLC(IARM) .EQ. IPOLMX) GO TO 401
000447  06           IAMWHO(1) = 0
000448  06           IAMWHO(2) = NBDIV +1
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000449  06          IAMWHO(3) = IARM
000450  06          GO TO 410
000451  06        401 CONTINUE
000452  06        402 CALL ERRCON(306 +ISIDE)
000453  06        403 IF (ICORPS.EQ.0) ISECTM=1
000454  06            IF (ICORPS.EQ.0.AND.IASGN.EQ.IRNGE) GO TO 500
000455  06    C
000456  06    C                    ••• WEAK ON-LINE DIVISION LOGIC •••
000457  06    C
000458  06          IAMWHO(1)=0                                          BWK 237
000459  06          IAMWHO(3)=ICDATA(1,ICORPS)                           BWK 240
000460  06    C   NEXT 4 LINES MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000461  06          IARM=IAMWHO(3)                                       BWK 242
000462  06          IF(ISIDE .EQ. 2) GO TO 108
000463  06          IF(IDEFSW.EQ.0) GO TO 109
000464  06          IAMWHO(2)=NBDIV+1                                      BWK 239
000465  06          IF(RPOOLC(IARM).EQ.IPOLMX) GO TO 109                 BWK 243
000466  06        410 NBDIV=NBDIV+1                                      BWK 238
000467  06    C     PLACE REINFORCING DIV IN RPOOL                       BWK 244
000468  06          RPOOLC(IARM)=RPOOLC(IARM)+1                          BWK 245
000469  06          ICOUNT=RPOOLC(IARM)                                  BWK 246
000470  06          RPOOL(ICOUNT,1,IARM)=IAMWHO(2)                       BWK 247
000471  06    C                                                              BWK 251
000472  06          GO TO 4000                                             BWK 252
000473  06    C   NEXT 8 LINES ADDED FOR RED ARMY RESERVE POOL, DEC 78
000474  06    C   RED SIDE ASSIGN REINFORCING DIVS TO ARMY RESERVE POOL.
000475  06    C     IF POOL IS FULL, LET NORMAL LOGIC ASSIGN DIV TO FRONT
000476  06        108 IF(IPOOLC(IARM) .EQ. IPOLMX) GO TO 109
000477  10          NRDIV = NRDIV +1
000478  06          IAMWHO(2) = NRDIV
000479  06    C   PLACE REINFORCING DIVISION IN POOL
000480  06          IPOOLC(IARM) = IPOOLC(IARM) +1
000481  06          IC = IPOOLC(IARM)
000482  06          IPOOLR(IC,1,IARM) = IAMWHO(2)
000483  09    C   NEXT 18 LINES ADDED FOR RED ARMY RESERVE POOL, FEB 79
000484  09            CALL CINDEX (IARM,BTAREE,INDEXA,LOVERA)
000485  09            CALL PIK (ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORP)
000486  09            CALL PIK (ARMY(INDEXA),LOVERA+BSARLM,BLARLM,MINILA)
000487  09            CALL PIK (ARMY(INDEXA),LOVERA+BSARHM,BLARHM,MINIHA)
000488  09           NDIVA = IPOOLC(IARM)
000489  09          LOVRAI = LOVERA +BSARCI
000490  09          DO 466 I=1,NCORP
000491  09              CALL PIK (ARMY(INDEXA),LOVRAI,BLARCI,ICORPS)
000492  09              LOVRAI=LOVRAI+BLARCI
000493  09          CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)
000494  09            CALL PIK (CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000495  09        466 NDIVA = NDIVA +NDIV
000496  09          IF(MMSDIV*(NDIVA+1) .LE. MINIHA+1-MINILA) GO TO 4000
000497  09          LOVRAI = LOVERA +BSARCI
000498  09          DO 476 I=1,NCORP
000499  09              CALL PIK (ARMY(INDEXA),LOVRAI,BLARCI,ICORPS)
000500  09              LOVRAI=LOVRAI+BLARCI
000501  09        476 ICDATA(2,ICORPS) = 3
000502  06          GO TO 4000
000503  06    C                                                          BWK 253
000504  06        109 CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)           BWK 254
000505  06    C                                                          BWK 255
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```
000563        06            GO TO 6000
000564        06    C
000565        06    C----------ARMY CANNOT ACCEPT NEW CORPS - CREATE NEW ARMY
000566        06     7000 NARMY=NARMY+1
000567        06          IF (NARMY.GT.MXAR) CALL ERRCON (304,ISIDE)
000568        06          NARCR(ICARMY)=3
000569        06          NARCR(NARMY)=3
000570        06          CALL CREARM (ICARMY,NARMY,ARMY,NCORPS,CORPS,ICDATA,ISIDE)
000571        06          GO TO 6000
000572        06    C
000573        06    C----------EXIT
000574        06    9999  IF (ITEST.NE.0) GO TO 1
000575        06          RETURN
000576        06          END

END ELT.


@HDG,P  •••••• ASREIN/COUNTP ••••••


@ELT,L 75PRINT1,ASREIN/COUNTP
ELT007 573RIA 02/27/79 14119:42 (7,)
000001        03              COMPILER (XM=1)
000002        03    C     NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000003        03           SUBROUTINE ASREIN(NARMY,ARMY,ISIDE,IPOOL,IPOOLC,CORPS,NCORPS)
000004        03    C
000005        03    C
000006        03    C
000007        03    C
000008        03    C     THIS SUBROUTINE IS CALLED JUST PRIOR TO THE CORPS CYCLE ESTI-
000009        03    C      MATION.  IT WILL ASSIGN AN ARMY RESERVE POOL REINFORCING DI-
000010        03    C      VISION TO THOSE CORPS WITH SUFFICIENT FRONTAGE & WITHOUT A
000011        03    C      RESERVE DIVISION, TO BE USED BY THE CORPS DURING ESTIMATION.
000012        03    C
000013        03              INCLUDE PROC
000014        03             INCLUDE BTARMY
000015        03             INCLUDE BTBDV
000016        03    C     NEXT LINE ADDED FOR RED SIDE, DEC 78
000017        03           INCLUDE BTRDV
000018        03             INCLUDE BTCORP
000019        03               INTEGER TOTDIV
000020        03    C
000021        03               DIMENSION ARMY(1),MSNRNK(5),ICORP(5),MAXMSN(3)
000022        03             DIMENSION ICDATA(7,60),CDATA(7,60),NARCR(12)
000023        03               EQUIVALENCE (ICDATA(1,1),CDATA(1,1))
000024        03               COMMON/MXUNIT/MXARB,MXCRB,MXARR,MXCRR,MXCPA,MXDPC
000025        03    C     NEXT LINE ADDED FOR RED SIDE, DEC 78
000026        03             DIMENSION IPOOL(9,3,6), IPOOLC(1), CORPS(1)
000027        03    C     MSNRNK IS PRIORITY LIST OF CORPS BY CORPS MISSION: DELAY=1,
000028        03    C      ATTACK=2, DEFEND=3.
000029        03    C
000030        03    C     NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000031        03               COMMON/MINMSD/MMSDV(2)
000032        03               COMMON/IOUNIT/IO1,IO2,IO6
000033        03               COMMON/BORDIV/INFORT(70)
000034        03               COMMON /CDELAY/UNTCDB(2),UNTCDR(2),CRESDB(2),CRESDR(2)
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000035  03          COMMON/WHOAM1/IAMWHO(3)
000036  03          COMMON/AIRENV/KAIRSW(2)
000037  03          COMMON/CORDER/CFPTHR(5,11,2)
000038  03  C    CFPTHR ARRAY (CORPS,ARMY,SIDE) CONTAINS THE CORPS FP RATIO
000039  03  C     MINUS THE RESERVE DECISION THRESHOLD FROM THE PREVIOUS CYCLE.
000040  03  C
000041  03          DATA MAXMSN/0,2,1/
000042  03  C       JAIRSW = KAIRSW(ISIDE)
000043  03  C       IDLY = UNTCDB(JAIRSW) +1
000044  03  C
000045  03          IF(ISIDE .EQ. 2) GO TO 21
000046  03          MXAR = MXARB
000047  03          MXCR = MXCRB
000048  03          MMSDIV = MMSDV(1)
000049  03          GO TO 24
000050  03     21   MXAR = MXARR
000051  03          MXCR = MXCRR
000052  03          MMSDIV = MMSDV(2)
000053  03  C
000054  03  C     LOOK AT ALL CORPS:
000055  03     24   DO 1000 I=1,NARMY
000056  03          IF(IPOOLC(I,1) .EQ. 0) GO TO 1000
000057  03          IAMWHO(3) = I
000058  03  C     ARE ALL REINFORCING DIVS IN ARMY RESERVE POOL ALREADY ASSIGND?
000059  03          IM = IPOOLC(I)
000060  03          DO 40 J=1,IM
000061  03          IF(IPOOL(J,2,I) .EQ. 0) GO TO 50
000062  03     40 CONTINUE
000063  03          GO TO 1000
000064  03     50   CALL CINDEX(I,BTAREE,INDEX,LOVERT)
000065  03          CALL PIK(ARMY(INDEX),LOVERT+BSARNC,BLARNC,NCRPA)
000066  03          CALL PIK(ARMY(INDEX),LOVERT+BSARRC,BLARRC,IRCRP)
000067  03        WRITE(17,5010) ISIDE, I, IPOOLC(I)
000068  03   5010 FORMAT(' SUBROUTN ASREIN, SIDE',I2,', ARMY',I3,' IPOOLC(1,I)',I3)
000069  03          LOVER = LOVERT +BSARC
000070  03          ICOUNT = 0
000071  03  C     DOES CORPS ALREADY HAVE A RESERVE OR CAN IT ACCEPT A RESERVE?
000072  03  C
000073  03        TOTDIV= 0
000074  03          DO 900 J=1,NCRPA
000075  03        MSNRNK(J) = -1
000076  03          CALL PIK(ARMY(INDEX),LOVER,BLARC,ICORP(J))
000077  03          CALL CINDEX(ICORP(J),BTCREE,INDEXC,LOVERC)
000078  03          CALL PIK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000079  03  C     IF A CORPS IS NOT LIKELY TO COMMIT A RESERVE DIV, DON'T GIVE IT ONE.
000080  03          IF(CFPTHR(J,1,ISIDE).GT.0. .AND. NDIV.EQ.MXDPC) GO TO 850
000081  03            TOTDIV=TOTDIV+NDIV
000082  03          LOVERM = LOVERC
000083  03          IF(J .EQ. IRCRP) GO TO 850
000084  03          KORP = ICORP(J)
000085  03          CALL PIK(CORPS(INDEXC),LOVERC+BSCRLM,BLCRLM,ICDATA(3,KORP))
000086  03          CALL PIK(CORPS(INDEXC),LOVERC+BSCRHM,BLCRHM,ICDATA(4,KORP))
000087  03          CALL PIK(CORPS(INDEXC),LOVERC+BSCRMS,BLCRMS,ICDATA(2,KORP))
000088  03          ICDATA(1,KORP) = 1
000089  03          CALL PIK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,IRDIV)
000090  03          IF(IRDIV .NE. 0) GO TO 850
000091  03  C     HOW ABOUT FRONTAGE?
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```
000092  03  C
000093  03          MINIWD = ((CDATA(4,KORP) -(CDATA(3,KORP)) +1
000094  03            IF((NDIV+1)*MMSDV(ISIDE) .GT.MINIWD) GO TO 850
000095  03  C     NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000096  03            IF(ISIDE.EQ.2) GO TO 828
000097  07           WRITE(17,5020) J,KORP,IRDIV,NDIV,(ICDATA(K,KORP),K=3,4)
000098  07   5020 FORMAT(' **ASREIN - J,ICORP(J),IRDIV,NDIV,ILOW,IHIGH:',7I5)
000099  03            LOVERC = LOVERC +BSCRD(
000100  03            ISWTST = 0
000101  03            DO 800 K=1,NDIV
000102  03            CALL PIK(CORPS(INDEXC),LOVERC,BLCRD(,KDIV)
000103  03  C     IS THIS A BORDER DIVISION -- CORPS MUST HAVE AT LEAST ONE NORMAL
000104  03  C      DIVISION WITH AEQUATE FRONTAGE TO BE REINFORCED,
000105  03  C     BLUE(
000106  03  C           IF((INFORT(KDIV).NE.0 .AND. NDIV.GE.MXDPC) GO TO 850
000107  03            IF((INFORT(KDIV).EQ.0) GO TO 730
000108  03            ISWTST = KDIV
000109  03            GO TO 790
000110  03  C     A REINFORCING DIV MAY BE ASSIGNED TO A CORPSWITH A BORDER DIV IF
000111  03  C      # OF DIVS IN THE CORPS < 5, ONE OF THE DIVS IN THE CORPS CAN SPLIT
000112  03  C      ITS FRONTAGE, & THE CORPS HAS NO RESERVE DIV.
000113  03  C
000114  03  C     LOOK AT NORMAL DIV (KDIV) FRONTAGE(
000115  03    730   CALL CINDEX(KDIV,BTBVTE,INDEXD,LOVERD)
000116  03            CALL PIK(BDIV(INDEXD),LOVERD+BSBVLM,BLBVLM,IL)
000117  03            CALL PIK(BDIV(INDEXD),LOVERD+BSBVHM,BLBVHM,IH)
000118  03           IFRONT = ((IH -IL) +1)/2
000119  03  C           WRITE(17,5030)K, KDIV, IL, IH, IFRONT
000120  03  C5030 FORMAT (' **ASREIN -K, KDIV, IL, IH, IFRONT:',5I5)
000121  03            IF((IFRONT .LT. MMSDV(ISIDE)) GO TO 790
000122  03  C     FRONTAGE OF NORMAL DIV CAN ACCEPT A REINFORCING DIVISION.
000123  03            GO TO 828
000124  03    790 LOVERC = LOVERC +BLCRD(
000125  03    800 CONTINUE
000126  03        IF(ISWTST .NE. 0) GO TO 850
000127  03    828 ICOUNT = ICOUNT +1
000128  03            CALL PIK(CORPS(INDEXC),LOVERM+BSCRMS,BLCRMS,MSNRNK(J))
000129  05  C     IF A CORPS IS NOT LIKELY TO COMMIT A RESERVE DIV, DON'T GIVE IT ONE;
000130  05          IF(CFPTHR(J,I,ISIDE).GT.0. .AND. MSNRNK(J).EQ.2)MSNRNK(J)=-1
000131  03    850 LOVER = LOVER + BLARC(
000132  03  C     MSNRNK(J) .GE. 0 IF J CORPS CAN ACCEPT DIV.
000133  03    900 CONTINUE
000134  03  C
000135  03  C     ANY CORPS CAPABLE OF ACCEPTING REINFORCING DIV FROM ARMY
000136  03  C      RESERVE POOL?
000137  03  C
000138  03            IF(ICOUNT .EQ. 0) GO TO 1000
000139  03  C     YES, PROCESS THOSE CORPS(
000140  03  C     ASSIGN REINFORCING DIVISION BY CORPS MISSION(
000141  03  C      ASSIGNMENT PRIORITY -- DELAY (0) =1, ATTK (2) =2,
000142  03  C      DEFENSE (1) =3
000143  03           NARCR(1) = NCRPA
000144  03            DO 970 IM=1,3
000145  03            MAXM = MAXMSN(IM)
000146  03  C     NEXT 2 LINES ADDED TO AVOID ASSIGNING UNNEEDED DIV TO CORPS(
000147  03     27 UNEED = 100000.
000148  07            IF(IPOOLC(1) .LE. 0) GO TO 1000
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000149  03            IF(MAXM .EQ. 2) UNEED = 0. -UNEED
000150  03            MOST = 0
000151  03            DO 950 KJ=1,NCHPA
000152  03           1SHARE=0
000153  03      C     WRITE(17,5040) IM, KJ, MSNRNK(KJ)
000154  03      5040 FORMAT(' **ASREIN: IM, KJ, MSNRNK(KJ)=',3I5)
000155  03            IF(MSNRNK(KJ) .LT. 0) GO TO 950
000156  03      C     FIND CORPS, IF ANY, WITH PRIORITY MISSION MAXMSR:
000157  03      C
000158  03            IF(MSNRNK(KJ) .NE. MAXM) GO TO 950
000159  03      C     WRITE(17,6050)CFPTHR(KJ,1,ISIDE),1,ISIDE,MAXM,UNEED
000160  03      6050 FORMAT(' CFPTHR,ARMY,SIDE,MISSION,UNEED:',F10.3,3I5,F11.3)
000161  03      C
000162  03      C     WHICH CORPS NEEDS RESERVE DIV AND IS MOST LIKELY TO COMMIT IT?
000163  03            IF(CFPTHR(KJ,1,ISIDE).GE.UNEED.AND.MAXM.NE.2) GO TO 950
000164  03            IF(CFPTHR(KJ,1,ISIDE).LE.UNEED.AND.MAXM.EQ.2) GO TO 950
000165  03            UNEED = CFPTHR(KJ,1,ISIDE)
000166  03            MOST = KJ
000167  03      950 CONTINUE
000168  03            IF(MOST .EQ. 0) GO TO 970
000169  03      C
000170  03      C     GET STRONGEST REINFORCING DIV IN ARMY RESERVE POOL.
000171  03      C      MUST BE WITHOUT COMMITMENT PLAN.
000172  03            IAMWHO(1) = 0
000173  03      C     NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000174  03            CALL REPLST(IPOOL,IPOOLC,ISIDE)
000175  03            IF (IAMWHO(1) .LE. 0) GO TO 1000
000176  03            IRPL = IAMWHO(1)
000177  03            IRDV = IPOOL(IRPL,1,1)
000178  03      C     RESET MISSION ARRAY:
000179  03            MSNRNK(MOST) = -1
000180  03            CALL CINDEX(ICORP(MOST),BTCREE,INDEXC,LOVERC)
000181  03            CALL PIK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDV)
000182  03            KDIV = NDV +1
000183  03      C     REMOVE REINFORCING DIV FROM ARMY RESERVE POOL:
000184  03            IF(IPOOLC(1) .EQ. IAMWHO(1)) GO TO 948
000185  03      C
000186  03            KOUNT = IPOOLC(1) -1
000187  03            DO 945 IJ=IRPL,KOUNT
000188  03            DO 940 KX=1,3
000189  03            IPOOL(IJ,KX,1) = IPOOL(IJ+1,KX,1)
000190  03      940 CONTINUE
000191  03      945 CONTINUE
000192  03      948    IJ = IPOOLC(1)
000193  03           IPOOLC(1) = IPOOLC(1) -1
000194  03            IPOOL(IJ,1,1) = 0
000195  03            IPOOL(IJ,2,1) = 0
000196  03            IF(KDIV .LE. MXDPC) GO TO 6969
000197  03      C     ICORP(MOST) CANNOT ACCEPT THIS DIV (IRDV) WITHOUT CREATING ANOTHER
000198  03      C      CORPS:
000199  03      C
000200  03      C
000201  03      C
000202  03      C IF THIS ARMY:
000203  03      C     1) HAS FIVE CORPS, BUT
000204  03      C     2) HAS LESS THAN 18 DIVISIONS IN THE ARMY, THEN
000205  03      C     DO NOT PERMIT DIV ASSIGNMENT TO THE 5-DIV CORPS.
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000206  03            IF(NCRPA.LT.MXCPA)GO TO 920
000207  03            IF(TOTDIV.GT.17)GO TO 920
000208  03          IF(TOTDIV+IPOOLC(I) .GT.20)GO TO 920
000209  03  C  CANNOT MAKE ASSIGNMENT
000210  03            WRITE(17,5555)I,ICORP(MOST),ISIDE
000211  03  5555      FORMAT(1H ,'ATTEMPTED RES DIV ASSGMNT ABORTED - WILL CAUSE',
000212  03     1           ' ARMY CREATION',/1H ,10X,5HARMY=,I2,4X,6HCORPS=,I3,4X,
000213  03     2           5HSIDE=,I2,/)
000214  03  C     CANNOT ASSIGN THIS DIV TO THIS CORPS. RESTORE IT INTO IPOOL!
000215  03            IPOOLC(I) = IPOOLC(I) +1
000216  03            KOUNT = IPOOLC(I)
000217  03            IPOOL(KOUNT,1,I) = IRDV
000218  03              GO TO 27
000219  03    920     NCORPS = NCORPS +1
000220  03            IF(NCORPS .GT. MXCR) CALL ERRCON(302+ISIDE)
000221  03            KCORP = ICORP(MOST)
000222  03          NEXDIV = IRDV
000223  03            CALL CRECRP(KCORP,NCORPS,CORPS,NEXDIV,ICDATA,ISIDE)
000224  03  C     CAN THIS ARMY ACCEPT A NEW CORPS?
000225  03            ICARMY = ICDATA(1,KCORP)
000226  03            IF(NARCR(ICARMY) .EQ. MXCPA) GO TO 9000
000227  03  C
000228  03  C     ARMY CAN ACCEPT A NEW CORPS. MODIFY DATA ACCORDINGLY!
000229  03            LOVRT = LOVERT +NARCR(I)*BLARC
000230  03          NARCR(I) = NARCR(I)+1
000231  03            CALL PAK(ARMY(INDEX),LOVERT+BSARNC,BLARNC,NARCR(I))
000232  03          CALL PAK(ARMY(INDEX),LOVRT+BSARC,BLARC,NCORPS)
000233  03            WRITE(17,1801)I,NARCR(I),NCORPS,ICARMY,KCORP,NEXDIV,ISIDE,KDIV
000234  03   1801 FORMAT(' CORPS CREATION IN ASREIN! I, NARCR(I), NCORPS,'
000235  03     *,' ICARMY, KCORP, NEXDIV, ISIDE, KDIV!',8I5)
000236  03            GO TO 7171
000237  03  C
000238  03  C     CREATION OF CORPS HAS CAUSED CREATION OF A NEW ARMY!
000239  03   9000 NARMY = NARMY+1
000240  03            IF(NARMY .GT. MXAR) CALL ERRCON(304+ISIDE)
000241  03            NARCR(I) = 3
000242  03            NARCR(NARMY) = 3
000243  03            CALL CREARM(I,NARMY,ARMY,NCORPS,CORPS,ICDATA,ISIDE)
000244  03            ISHARE=NARMY
000245  03  C
000246  03  C     CLEAR ANY ARMY(I) RESERVE POOL ASSIGNMENTS!
000247  03  C           IPLSZ = IPOOLC(I)
000248  03  C           DO 7103 INK=1,IPLSZ
000249  03  C7103 IPOOL(INK,2,I) = 0
000250  03   7171       IF(ISHARE.EQ.0)GO TO 27
000251  03            IF(ISIDE.EQ.1) GO TO 24
000252  03  C SHARE I(TH) ARMY RES POOL DIVISIONS WITH NARMY RES POOL
000253  03  C
000254  06            WRITE(17,245)NARMY,I,IPOOLC(I)
000255  06    245 FORMAT(' RED ARMY',I2,' CREATED FROM ARMY',I2,',  IPOOLC(I)=',I2)
000256  03            IF(IPOOLC(I).LE.1)GO TO 24
000257  06  C     NEXT 46 LINES ADDED TO PREVENT TOO MANY DIVS FOR ARMY FRONTAGE, 2/79
000258  06          CALL CINDEX (I,BTAREE,INDEXA,LOVERA)
000259  06            CALL PIK (ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORP)
000260  06            CALL PIK (ARMY(INDEXA),LOVERA+BSARLM,BLARLM,MINILA)
000261  06            CALL PIK (ARMY(INDEXA),LOVERA+BSARHM,BLARHM,MINIHA)
000262  06          NDIVA = 0
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000263  06          LOVRA1 = LOVERA +BSARC1
000264  06          DO 266 INK=1,NCORP
000265  06              CALL PIK (ARMY(1NDEXA),LOVRA1,BLARC1,1CORPS)
000266  06              LOVRA1=LOVRA1+BLARC1
000267  06          CALL CINDEX(1CORPS,BTCREE,INDEXC,LOVERC)
000268  06            CALL PIK (CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000269  06      266 NDIVA = NDIVA +NDIV
000270  06              MINE = (MINIHA+1-MINILA)/MMSDIV -NDIVA
000271  06              MINE = MAXO(MINE,0)
000272  04              IF(MINE .GT. IPOOLC(1)-IPOOLC(1)/2) GO TO 230
000273  04              IYOURS = IPOOLC(1) -MINE
000274  04              GO TO 271
000275  04      230    CALL CINDEX (NARMY,BTAREL,INDEXA,LOVERA)
000276  03             CALL PIK (ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORP)
000277  03             CALL PIK (ARMY(INDEXA),LOVERA+BSARLM,BLARLM,MINILA)
000278  03             CALL PIK (ARMY(INDEXA),LOVERA+BSARHM,BLARHM,MINIHA)
000279  03            NDIVA = 0
000280  03          LOVRA1 = LOVERA +BSARC1
000281  03          DO 206 INK=1,NCORP
000282  03              CALL PIK (ARMY(INDEXA),LOVRA1,BLARC1,1CORPS)
000283  03              LOVRA1=LOVRA1+BLARC1
000284  03          CALL CINDEX(1CORPS,BTCREE,INDEXC,LOVERC)
000285  03            CALL PIK (CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000286  03      206 NDIVA = NDIVA +NDIV
000287  03              IYOURS = (MINIHA+1-MINILA)/MMSDIV -NDIVA
000288  06              IYOURS = MAXO(1YOURS,0)
000289  03              IF(1YOURS .GT. IPOOLC(1)/2) GO TO 220
000290  03             MINE=IPOOLC(1)-1YOURS
000291  03              GO TO 271
000292  04      220      MINE=1POOLC(1)-(1POOLC(1)/2)
000293  03               IYOURS=IPOOLC(1)-MINE
000294  03      271      MIN=MINE
000295  03               DO 7107 IGV=1,IYOURS
000296  03               MIN=MIN+1
000297  03               IPOOL(IGV,1,NARMY)=IPOOL(MIN,1,1)
000298  03               IPOOL(MIN,1,1)=0
000299  03      7107     CONTINUE
000300  03               IPOOLC(1)=MINE
000301  03               IPOOLC(NARMY)=IYOURS
000302  03              GO TO 24
000303  03      C
000304  03       6969   CALL PAK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,KDIV)
000305  03              CALL PAK(CORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,KDIV)
000306  03              CALL PAK(CORPS(INDEXC),LOVERC+BSCRRT,BLCRRT,01
000307  03              LOVERX = LOVERC +(NDV*BLCRD1) +BSCRD1
000308  03               CALL PAK(CORPS(INDEXC),LOVERX,BLCRD1,IRDV)
000309  03                WRITE(17, 7000) IRDV, MOST, I, ISIDE
000310  03      7000 FORMAT(5H DIV ,13,' NOTIONALLY ASSIGNED TO ',13,' CORPS RES ',
000311  03         • 'FROM ',12,' ARMY, SIDE',12)
000312  03              GO TO 27
000313  03      C
000314  03      C
000315  03        970 CONTINUE
000316  03       1000 CONTINUE
000317  03      C
000318  03              RETURN
000319  03              END
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END ELT.

@HDG,P ••••••  ASSESS/FEBM-C  ••••••

@ELT,L 7SPRINT],ASSESS/FEBM-C
ELT007 S73RIA 02/27/79 [4119]46 [1,]
000001       00          COMPILER (XM = 1)
000002       00          SUBROUTINE ASSESS
000003       00    C---------ROUTINE TO ASSESS ENGAGEMENT OUTCOMES
000004       00            INCLUDE PROC
000005       00             COMMON/PRTSW/[PRINT(2),IPP,MINIPL,MINIPH,JPP
000006       00    C      COMMON/ROBNSN/ ALLIFP(2),ATIFPA(2,2),ATIFPM(2,2)  @CANCELLED 8/78
000007       00    C
000008       00          COMMON/BNTYPE/NBNTPB,NBNTPR
000009       00          COMMON/BVASS/ACCASB(3),STATDB(3),ARTYB(3),ACB(3),DSACB
000010       00          COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),
000011       00         •              IBDE(3),MINB(2,3),MANBNB(50,3),MSNB(3),IDRB(3),
000012       00         •              IGRB(3),IDSB(3),LCAB(3),JHRB(3),IGBDE,JARTPB,IBHPCT
000013       00         •              ,IDSART(3),IWDS(3),IBDECT
000014       00          INTEGER DSABNB,DGABNB,GSABNB,ACSQB
000015       00          COMMON/CRHLOS/INDCRP,CRLOSS(5)
000016       00          COMMON/MANUNT/BMAN(50),BAB,BCAS,BHLPCT,CUMHLB(5),BBHIFP(3,5,5),
000017       00         •              RMAN(50),RAB,RCAS,HELIKL(5),HELRKL(5)
000018       00    C     COMMON/IWPNTP/NTNKS(2),NLARMR(2),NHELOS(2),NANTNK(2) @C 8/78
000019       00          COMMON/MANST/MANSTB,MANSTR
000020       00          COMMON/ROWI  / WPIFP(2,12,2),WPIFPT(2,2),WIDTH,ISUPSW
000021       00          DIMENSION FRN(5,335)
000022       00          EQUIVALENCE (NFR,FRN)
000023       00          COMMON/RVASS/ACCASR,STATDR,ARTYR,ACR
000024       00          COMMON/ITBDE/INDBDE
000025       00    C  INDEX 1,2, OR 3 OF BDE CURRENTLY BEING PROCESSED
000026       00          COMMON/UMATX/UMATR(3,4,4)
000027       00    C  3X4 IFP ;;   1=BLUE BDE 2=RED DIV 3=BLUE CORPS   4=BLUE DIV
000028       00          COMMON/HPCT/HPCTCD,HPCTC
000029       00    C    HPCTC=PERCENT OF CORPS SUPPORT
000030       00    C  HPCTCD= PERCENT OF DIV AND CORPS SUPPORT TO FRONTLINE BDE
000031       00    C     INCLUDE RVDATA,LIST
000032       00          COMMON/RVDATA/MINRV(2),DSABNR,DGABNR,GSABNR,ACSQR,ISTR,MANBNR(50),
000033       00         •              MSNR,IDRR,IGRR,LCAR,JARTPR,IDVTP,IRDS
000034       00          INTEGER DSABNR,DGABNR,GSABNR,ACSQR
000035       00          COMMON/CAS/P51B,P51R,CASRFB,CASRFR,SPAB(3),SPAR(3),GDAB,GDAR
000036       00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC
000037       00           INCLUDE BTMINI
000038       00    C     COMMON/SSDATA/INDSS(3,2),NENTSS(3,2),JENTSS(10,3,2)
000039       00          COMMON/BARM/NBARMY,BARMY(15)
000040       00          COMMON/RARM/NRARMY,RARMY(27)
000041       00           INCLUDE BTARMY
000042       00    C       DIMENSION IFLNKS(2),KATKR(8),ISSTRT(3),LFEB(3)  @REPLACED AUG 78
000043       00            DIMENSION IFLNKS(2),KATKR(8),LFEB(3)
000044       00          COMMON/HALOCT/HLPCT(3)
000045       00          DATA HLPCT/ 0.333333, 0.500000, 0.666666 /
000046       00          EQUIVALENCE (LFEB(3),LFEBA)
000047       00          DATA KATKR/3*1,0,3*2,0/
000048       00    C     DATA ISSTRT/2,3,1/
000049       00          COMMON/BDEINX/JBDLBT
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000050  00        COMMON/FEBMOD/FMMOD,BARRR(4)
000051  00  C    NEXT 2 LINES CANCELED TO REPORT BUNKER LOSSES, OCT 78
000052  00  C     COMMON/BIGLOS/LOSSES(45,4)
000053  00  C      REAL LOSSES
000054  00        COMMON/EARTFP/ARTEFP(2),IFRIND
000055  00  C   EFFECTIVE ARTILLERY FIREPOWER DELIVERED AGAINST ENEMY
000056  00        COMMON/CAVBDE/ICRPB,IDIVB
000057  00        COMMON/TRQMNS/RQMNTS(54,2)
000058  00        COMMON/TRQMNX/RQMNTX(5,3)
000059  00  C  1=PERSONNEL,2=POL,3=AMMO,4=OTHER SUPPLIES,5-16=TANKS BY TYPE,
000060  00  C  34-45=ANTI-TANKS/MORTARS BY TYPE
000061  00  C  17-28=LIGHT ARMOR BY TYPE,29-33=HELICOPTERS BY TYPE,
000062  00  C
000063  00  C     COMMON/RQFLNK/MLNIKT      &CANCELLED (NOT USED) AUG 78
000064  00  C
000065  00  C
000066  00        COMMON/REM/ARTYMB(3),ARTYMK,TOTGSB(3),TOTGSR(3),RMCASB,RMCASR
000067  00  C  AMOUNT OF GS ARTY BNS UNASSIGNED IN DIRECT SUPPORT OF ONLINE BLUE AND
000068  00  C  RE DIVS BY BLUE BDE AND RED DIV BOUNDARIES IN ASSESSMENT....
000069  00  C  TOTGSB,TOTGSR=TOTAL GS BN EQ NOT, I REPEAT NOT, ASSIGNED DS ROLE
000070  00  C  RMCASB,RMCASR=TOTAL UNASSIGNED CAS SQUADRONS NOT ASSIGNED
000071  00  C
000072  00        COMMON/AREXP/ EXPART(10,4,2),GSLOSS(12)
000073  00  C    NEXT 4 LINES ADDED FOR ALLOCATION TO BORDER BRIGADES, AUG 78
000074  00        COMMON/BUNKER/TANK1(600),TANK6(600)
000075  00        COMMON/BORDIV/INFORT(70)
000076  00        COMMON/BORBDE/FRACBD(3,28)
000077  00        COMMON/SSLIMT/ILO,IHI
000078  00  C    NEXT 2 LINES ADDED FOR FEBA MOVEMT PRINT, NOV 78
000079  00  C     DIMENSION MFEB(3))
000080  00        INTEGER BTFEBM
000081  00  C    NEXT LINE ADDED FOR AMMO BY WPN TYPE, SEPT 77
000082  00        COMMON/AMOTYP/XTANK(12), XAPC(12), XATM(13), XHELO(5), IAMTSW
000083  00        COMMON/WHOART/IBDART(2),IRESDS(2),IGSDIV(2)
000084  00  C  ARTY BN EXPENDITURES  1=PERS 2=AMMO 3=TUBE TYPE 1 ,, 10=TUBE TYPE 8
000085  00        COMMON/TARTRQ/TTLART(10,2)
000086  00  C
000087  00  C---------HOUSEKEEPING FOR ROUTINE
000088  00        COMMON/IOUNIT/IO1,IO2,IO6,IO9
000089  00         WRITE(IO6,9000)
000090  00   9000 FORMAT (11X,'BEGIN ASSESSMENT')
000091  00        DO 9 I=1,3
000092  00        TOTGSB(I)=0.
000093  00        TOTGSR(I)=0.
000094  00     9  CONTINUE
000095  00        RMCASB=0.
000096  00        RMCASR=0.
000097  00        INDCRP=0
000098  00        KNTNFR=0
000099  00        DO 7031 KI=1,2
000100  00        ARTEFP(KI)=0.
000101  00        IBDART(KI)=0
000102  00        IRESDS(KI)=0
000103  00        IGSDIV(KI)=0
000104  00        DO 3131 I=1,10
000105  00        TTLART(I,KI)=0.0
000106  00   3131 CONTINUE
```

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000107  00          DO 3301 I=1,4
000108  00          DO 3303 K=1,10
000109  00          EXPART(K,I,K1)=0.0
000110  00    3303  CONTINUE
000111  00    3301  CONTINUE
000112  00          DO 7103 II=1,54
000113  00          RQMNTS(II,K1)=0.0
000114  00    7103  CONTINUE
000115  00    7031  CONTINUE
000116  00                DO 6301 II=1,5
000117  00                RQMNTX(II,1)=0.
000118  00                RQMNTX(II,2)=0.
000119  00                RQMNTX(II,3)=0.
000120  00     6301        CONTINUE
000121  00          DO 3200 I=1,2
000122  00            IFLNKS(I)=0
000123  00    C       DO 3201 J=1,3
000124  00    C         NENTSS(J,I)=0
000125  00    C         INDSS(J,I)=ISSTRT(J)
000126  00    C3201    CONTINUE
000127  00    C     NEXT 3 LINES ADDED FOR SOUTH-TO-NORTH ASSESSMENT, MAR 78
000128  00    C      IF(MOD(NDCYC,2).EQ. 1) GO TO 3202
000129  00    C      CALL SSSCAN (NMINI,1)
000130  00    C      GO TO 3200
000131  00    C3202   CALL SSSCAN (1,1)
000132  00     3200 CONTINUE
000133  00    C     NEXT 5 LINES CANCELED TO REPORT BUNKER LOSSES, OCT 78
000134  00    C      DO 3300 I=1,4
000135  00    C      DO 3111 K=1,45
000136  00    C      LOSSES(K,I)=0.
000137  00    C3111 CONTINUE
000138  00    C3300 CONTINUE
000139  00    C     NEXT LINE ADDED FOR AMMO BY WPN TYPE, SEPT 77
000140  00          IAMTSW = 1
000141  00          IDIVR=0
000142  00          IDIVB=0
000143  00          JBDEB=0
000144  00          ICSPBD=0
000145  00          MINIKT=1
000146  00    C
000147  00    C                    •• SOUTH TO NORTH ••
000148  00                        ISN=1-MOD(NDCYC,2)
000149  00                        IF(ISN.EQ.0) GO TO 2000
000150  00                        MINIKT=NMINI
000151  00    C                    ••       END        ••
000152  00    C
000153  00    C---------CONSIDERING SUBSECTOR BEGINNING W/MINIKT
000154  00     2000 CALL CINDEX (MINIKT,BTMIND,INDEX,LOVER)
000155  00          CALL PIK (MINID(INDEX,1),NOWPDD),LOVER,BTMIND,JBDEBT)
000156  00          CALL PIK (MINID(INDEX,2,NOWPDD),LOVER,BTMIND,IDIVRT)
000157  00    C
000158  00    C---------GET NEW UNIT DATA AS REQUIRED
000159  00          IF (JBDEBT.NE.JBDEB) GO TO 8001
000160  00     2001 IF (IDIVRT.NE.IDIVR) GO TO 8002
000161  00    C
000162  00    C---------NEW UNIT DATA RETRIEVED - CALCULATE HIGH BOUNDARY AND WIDTHS
000163  00    C                    •• SOUTH TO NORTH ••  GET LOW BOUNDARY AND WIDTHS
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000164   00    2002              IF(ISN.EQ.0) GO TO 12002
000165   00                      LMIN=MAXO(MINRV(1),MINB(1,INDBDE))
000166   00                      WIDTH=MINIKT-LMIN+1
000167   00                      GO TO 12003
000168   00    C                    **      END       **
000169   00    12002 LMIN=MINO(MINRV(2),MINB(2,INDBDE))
000170   00          WIDTH=LMIN-MINIKT+1
000171   00    12003 IF(WIDTH.LE.0.) RETURN 0
000172   00    C                    ** SOUTH TO NORTH **
000173   00                      ILO=MINIKT
000174   00                      IHI=LMIN
000175   00                      IF(ISN.EQ.0) GO TO 4262
000176   00                      ILO=LMIN
000177   00                      IHI=MINIKT
000178   00    C                    **      END       **
000179   00    4262  WIDTHR=WIDTH/FLOAT(MINRV(2)-MINRV(1)+1)
000180   00          WIDTHB=WIDTH/FLOAT(MINB(2,INDBDE)-MINB(1,INDBDE)+1)
000181   00          JPP=0
000182   00          IF(ILO.GE.MINIPL.AND.ILO.LE.MINIPH) JPP=IPP
000183   00          IF(JPP.GT.0) GO TO 85
000184   00          IF(IHI.GE.MINIPL.AND.IHI.LE.MINIPH) JPP=IPP
000185   00    C
000186   00    C----------SCALE UNIT COUNTS
000187   00       85 DO 3001 I=1,NBNTPB
000188   00            BMAN(I)=WIDTHB*FLOAT(MANBNB(I,INDBDE))
000189   00     3001 CONTINUE
000190   00          BCAS=WIDTHB*ACB(INDBDE)
000191   00          IND=IHRB(INDBDE)
000192   00          BHLPCT=0.
000193   00    C     NEXT 4 LINES MODIFIED FO ALLOCATION TO BDES, AUG 78
000194   00          HLBORD = HLPCT(IND)
000195   00          IF(INFORT(IDIVB).NE. 0) HLBORD =FRACBD(INDBDE,IDIVB)
000196   00          IF (NHELIB.NE.0) BHLPCT=WIDTHB*HLBORD
000197   00          HPCTCD=HLBORD
000198   00          DO 3002 I=1,NBNTPR
000199   00            RMAN(I)=WIDTHR*FLOAT(MANBNR(I))
000200   00     3002 CONTINUE
000201   00          RCAS=WIDTHR*ACR
000202   00    C
000203   00    C----------GET ENGAGEMENT, DEFENSE AND TERRAIN TYPES - GET OUTCOME
000204   00          IDFNDR=1
000205   00          IF (MSNB(INDBDE).EQ.2) IDFNDR=2
000206   00    C                    ** SOUTH TO NORTH **
000207   00                      IDEF=IDT(ILO,IHI,IDFNDR)
000208   00    C                    **      END       **
000209   00           IF(JPP.EQ.0) GO TO 19
000210   00                      WRITE (106,9001) ILO,IHI
000211   00     9001 FORMAT (1HO,10X,30(1H*),/
000212   00         * 1H ,10X,1H*,5X,'SUBSECTOR',2I5,4X,1H*,/,
000213   00         * 1H ,10X,30(1H*))
000214   00          WRITE (106,9003) IDIVB,JBDEBT,WIDTHB,MANSTB,ARTYB(INDBDE),
000215   00         1ARTYMB(INDBDE),ACB(INDBDE),HPCTCD,HPCTC
000216   00     9003  FORMAT (1H ,11X,8HBLUE DIV,I3,2X,3HBDE,I3,2X,6HFRONTF,F4.2,2X,5HST
000217   00         1ATE,I3,2X,7HARTY=DS,F5.2,2X,3HGS=,F5.2,2X,4HCAS=,F5.2,2X,11HCAV PC
000218   00         2T DIV,F4.2,2X,6HCORPS=,F4.2)
000219   00          WRITE (106,9005) IDIVRT,WIDTHR,MANSTR,ARTYR,ARTYMR,ACR
000220   00     9005  FORMAT (1H ,11X,7HRED DIV,I3,11X,6HFRONTF,F4.2,2X,5HSTATE,I3,2X,7H
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000221      00        1ARTY=DS,F5.2,2X,3HGS=,F5.2,2X,4HCAS=,F5.2)
000222      00     19 CONTINUE
000223      00        NGAGMT=NGAJTP (MSNB(INDBDE),MSNR,IDEF)
000224      00  C     NEXT LINE ADDED FOR NOTIONAL FEBA DISPLACEMT, NOV 78
000225      00        IF(NGAGMT.NE.8 .AND. INFORT(IDIVB).NE.0) NGAGMT = 6
000226      00  C     COMPUTE ARTY
000227      00        CALL CB(WIDTHB,WIDTHR,INDBDE,NGAGMT,BAB,RAB)
000228      00        IATKR=KATKR(NGAGMT)
000229      00  C                       ** SOUTH TO NORTH **
000230      00                       ITR=JTERAN(ILO,IHI,IATKR)
000231      00  C                       **      END       **
000232      00        IF(NGAGMT .EQ. 8)GO TO 2991
000233      00        DO 3900 I=1,NHELIB
000234      00        HELIKL(I)=HKILRT(NGAGMT,IDVTP,I)
000235      00     3900 CONTINUE
000236      00        IF(NHELIR .LE. 0)GO TO 3902
000237      00        DO 3901 I=1,NHELIR
000238      00        HELRKL(I)=HEKRTR(NGAGMT,I)
000239      00     3901 CONTINUE
000240      00     3902 CONTINUE
000241      00        CALL STAMAT (JBDEBT,WIDTHB,1,NGAGMT)
000242      00        CALL STAMAT (INDCRP,WIDTHB,3,NGAGMT)
000243      00        CALL STAMAT (IDIVB,WIDTHB,4,NGAGMT)
000244      00  C  MERGE BDE,DIV, AND CORPS IFP MATRIX INTO ONE MATRIX
000245      00        DO 9099 IJ=1,4
000246      00        DO 9098 IJI=1,3
000247      00        UMATR(IJI,IJ,1)=UMATR(IJI,IJ,1)+UMATR(IJI,IJ,4)+UMATR(IJI,IJ,3)
000248      00     9098  CONTINUE
000249      00     9099  CONTINUE
000250      00        CALL STAMAT (IDIVRT,WIDTHR,2,NGAGMT)
000251      00     2991 KOUT=MYOUT(NGAGMT,ITR,0,IATKR)
000252      00  C
000253      00  C----------ENTER ENGAGEMENT IN FREQUENCY TABLE
000254      00        KNTNFR=KNTNFR+1
000255      00         IF (KNTNFR.GT.MXNFR) RETURN 0
000256      00        NFR(1,KNTNFR)=NGAGMT
000257      00        NFR(2,KNTNFR)=JBDEB
000258      00        FRN(3,KNTNFR)=WIDTHB
000259      00        NFR(4,KNTNFR)=IDVTP
000260      00        FRN(5,KNTNFR)=WIDTHR
000261      00  C
000262      00  C----------GET FEBA ADVANCE
000263      00  C     NEXT 4 LINES MODIFIED FOR BORDER DIVS, OCT 78
000264      00  C2100 IFEBCH=KFEBCH (NGAGMT,ITR,KOUT)
000265      00        LTR = ITR
000266      00        IF(INFORT(IDIVB) .NE. 0) LTR = 2                    *TYPE "C",27JAN
000267      00        IFEBCH=KFEBCH (NGAGMT,LTR,KOUT)
000268      00  C----------IF BLUE IS THE DEFENDER AND IS IN DELAY, THE FEBA MOVEMENT
000269      00  C          THRESHOLD IS MODIFIED TO SHOW RED'S SLOWED ADVANCE DUE TO BARR
000270      00        RNDOFF = .5
000271      00        IF(IFEBCH.LT.0)RNDOFF = -.5
000272      00        IF(IDEF.EQ.1.AND.NGAGMT .EQ.7)IFEBCH=FLOAT(IFEBCH)*FMMOD+RNDOFF
000273      00  C                       ** SOUTH TO NORTH **
000274      00                       KVAL=KROSSD (MINIKT,IFEBCH,INDEXD)
000275      00  C                       **      END       **
000276      00        IF (KVAL.NE.0) IFEBCH=KVAL
000277      00  C   NEXT 33 LINES ADDED FOR BORDER DIVS, SEP 78
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000278   00        IF(JPP .NE. 0) WRITE(106,269)IFEBCH
000279   00      269 FORMAT(10X,'FEBA MOVEMENT BEFORE ADJUSTMENT:',I6)
000280   00    C     TEST FOR NOTIONAL FEBA CHANGE FOR RUPTURE OF BORDER DIV:
000281   00    C
000282   00        IF(INFORT(IDIVB) .EQ. 0) GO TO 2101
000283   00        IFEB = IFEBCH
000284   00        IFEBCH = 0
000285   00    C
000286   00    C     CALCULATE AIRCRAFT LOSSES
000287   00     2101  ACCASR=ACCASR+WIDTHR*ACR*SPAR(MSNR+1)*GDAB*WIDTHB/WIDTH
000288   00        MSNBDE=MSNB(INDBDE)+1
000289   00        ACCASB(INDBDE)=ACCASB(INDBDE)+WIDTHB*ACB(INDBDE)*SPAB(MSNBDE)*
000290   00       •                GDAR*WIDTHR/WIDTH
000291   00         IF(JPP.EQ.0) GO TO 5000
000292   00         WRITE(106,1245)ACR,SPAR(MSNR+1),GDAB,ACCASR
000293   00      1245 FORMAT(9X,'RED CAS SQDRNS IN DS=',F6.2,' (WHOLE DIV), LOSS RATE=',
000294   00       •  F6.4,' ADA DENSITY=',F7.3,' AC LOST THIS SECTOR=',F8.4)
000295   00        WRITE(106,1253)ACB(INDBDE),SPAB(MSNBDE),GDAR,ACCASB(INDBDE)
000296   00      1253 FORMAT(8X,'BLUE CAS SQDRNS IN DS=',F6.2,' (WHOLE BDE), LOSS RATE='
000297   00       • ,F6.4,' ADA DENSITY=',F7.3,' AC LOST THIS SECTOR=',F8.4)
000298   00    C ----------ADJUST/RESET FEBA, CALCULATE RJ TERMS
000299   00      5000 CALL ADJUST(NGAGMT,IFEBCH,MINIKT,LMIN,LFEB,INDEXD,IFLNKS)
000300   00    C
000301   00    C   ASSESS CASUALTIES AND WEAPON LOSSES
000302   00    C
000303   00        CALL CASL (JBDEBT,IDIVRT,IDIVB,INDCRP,WIDTHB,WIDTHR,WIDTH,NGAGMT,
000304   00       •     IFEBCH)
000305   00    C
000306   00    C     NEXT 19 LINES ADDED TO SAVE NOTIONAL FEBA MOVEMT BY MINIS, NOV 78
000307   00        IF(INFORT(IDIVB) .EQ. 0) GO TO 5050
000308   00        CALL CINDEX(ILO,BTFEBM,INDEXM,LOVERM)
000309   00        MFBIAS = FMBIAS*FMSCAL +0.5
000310   00        DO 281 I=ILO,IHI
000311   00        CALL PIK(FEBM(INDEXM),LOVERM,BTFEBM,IRUPT)
000312   00        IRUPT = IRUPT -MFBIAS
000313   00        IFEBM = IRUPT -IFEB
000314   00        MFEB = IFEBM +MFBIAS
000315   00        CALL PAK(FEBM(INDEXM),LOVERM,BTFEBM,MFEB)
000316   00        LOVERM = LOVERM +BTFEBM
000317   00    C     NEXT 8 LINES ADDED TO LOSE BUNKERS DUE TO FEBA MOVE, JAN 79
000318   01        IF(IFEBM .LE. 47) GO TO 281
000319   01        IF(IRUPT .GT. 47) GO TO 281
000320   00        WRITE(17,313)I,IFEBM,IRUPT,TANK1(I),TANK6(I),STAFIL(59,I),STAFIL
000321   00       •(69,I)
000322   00      313 FORMAT(' RUPTURE AT MINISCTR',I4,'. IFEBM,IRUPT,TANK1,TANK6,',
000323   00       •'STAFIL(59&69):',2I6,4F6.2)
000324   00        STAFIL(59,I) = STAFIL(59,I) -TANK1(I)
000325   00        STAFIL(69,I) = STAFIL(69,I) -TANK6(I)
000326   00        STAFIL(2,I) = STAFIL(2,I) +TANK6(I)*WPNBUF(1,6,I)
000327   00       • +TANK1(I)*WPNBUF(1,1,I)
000328   00        TANK1(I) = 0.
000329   00        TANK6(I) = 0.
000330   00      281 CONTINUE
000331   00        IRUPT = 0.5 + WIDTH
000332   00        IRUPT = 0-IFEB*IRUPT
000333   00    C     TEST FOR POTENTIAL OR VIABLE RUPTURE OF A BORDER DIV:
000334   00    C     A VIABLE RUPTURE MUST CAUSE REPLACEMENT OF BORDER DIV.
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000335  00  C     INFORT(IDIVB) = 0; NON-BORDER DIV
000336  00  C     INFORT(IDIVB) = 1; BORDER DIV BEFORE RUPTURE
000337  00  C     INFORT(IDIVB) > 1; BORDER DIV POTENTIALLY RUPTURED
000338  00  C     INFORT(IDIVB) < 0; BORDER DIV RUPTURED = REPLACE)
000339  00  C     INFORT(IDIVB) =-2; BORDER DIV RUPTURED, HAS BEEN REPLACED
000340  00          IF(INFORT(IDIVB).LT. 0) GO TO 366
000341  00          INFORT(IDIVB) = INFORT(IDIVB) + IRUPT
000342  00  C     IF RUPTURE IS VIABLE SET INFORT ARRAY;
000343  00  C      IF(((INFORT(IDIVB)-1)/(MINBV(2)-MINBV(1)+1).LT.20) GO TO 5050
000344  00  C      JBORD = 0
000345  00  C      CALL CINDEX(MINBV(1),BTFEBM,INDEXM,LOVERM)
000346  00  C      MFBIAS = FMBIAS*FMSCAL +0.5
000347  00  C      MINLD = MINBV(1)
000348  00  C      MINHD = MINBV(2)
000349  00  C      DO 148 MI=MINLD,MINHD
000350  00  C      CALL PIK(FEBM(INDEXM),LOVERM,BTFEBM,IFEBM)
000351  00  C      JBORD = JBORD +1
000352  00  C      MFEB(JBORD) = IFEBM -MFBIAS
000353  00  C      LOVERM = LOVERM +BTFEBM
000354  00  C 148 CONTINUE
000355  00  C      WRITE(17,201) IDIVB, INFORT(IDIVB),(MFEB(MI),MI=1,JBORD)
000356  00  C 201 FORMAT('0BORDER DIV',I3,' FEBA MOVEMT - ACTUAL',17,
000357  00  C     * ', NOTIONAL',17/7X,3I14)
000358  00  C      INFORT(IDIVB) = 0 -INFORT(IDIVB)
000359  00          GO TO 5050
000360  00    366 INFORT(IDIVB) = INFORT(IDIVB) -IRUPT
000361  00  C                       ** SOUTH TO NORTH **
000362  00   5050               IF(ISN.EQ.0) GO TO 9995
000363  00                      MINIKT=LMIN-1
000364  00                      IF(MINIKT.GE.1) GO TO 2000
000365  00                      GO TO 9996
000366  00  C                       **      END       **
000367  00   9995 MINIKT=LMIN+1
000368  00          IF (MINIKT.LE.NMINI) GO TO 2000
000369  00  C  PROCESS REQUIREMENTS FOR LAST BLUE AND RED UNITS ON FRONT
000370  00   9996 CALL DECRMT (JBDEB,1)
000371  00          CALL DECRMT (IDIVR,2)
000372  00          CALL CRQMNT (JBDEB,1,0)
000373  00          CALL CRQMNT (IDIVR,2,0)
000374  00          CALL DECRMT (INDCRP,3)
000375  00          I25=25
000376  00          CALL DECRMT (IDIVB,I25)
000377  00          CALL CRQMNT (INDCRP,3,0)
000378  00          CALL CRQMNT (IDIVB,4,0)
000379  00  C  WE HAVE PROCESSED ALL ACTIVE UNITS.
000380  00  C  WE MUST NOW ASSESS CASUALTIES (DNB1) AND
000381  00  C  POL,AMMO,OTHER SUPPLY CONSUMPTIONS TO ALL RESERVE UNITS.
000382  00          CALL RESLOS
000383  00          CALL PUTBV (IDIVB)
000384  00          CALL PUTRV (IDIVR)
000385  00  C     NEXT LINE ADDED FOR AMMO BY WPN TYPE, SEPT 77
000386  00          IAMTSW = 0
000387  00          RETURN
000388  00  C
000389  00  C---------NEW BLUE BDE ENCOUNTERED
000390  00    8001 IDIVBT=(JBDEBT-1)/3+1
000391  00          IF (IDIVB.EQ.0) GO TO 8202
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000449        00     160  MANSTR=ISTR
000450        00          GO TO 2002
000451        00          END

END ELT.


@MDG,P  •••••• BLDIFP/REDMOV ••••••


@ELT,L 75PRINT1.BLDIFP/REDMOV
ELT007 S73R1A 02/27/79 14:19:49 (1,)
000001        00          COMPILER (XM=1)
000002        00    C     NEXT LINE MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000003        00          SUBROUTINE BLDIFP(INDIV,SUMIFP,SUMSTA,BBHIFP,ISIDE)
000004        00            INCLUDE PROC
000005        00    C
000006        00    C THIS SUBROUTINE COMPUTES THE BLUE DIV (INDIV) IFP
000007        00    C
000008        00    C     NEXT LINE ADDED FOR BORDER DIVS, SEP 78
000009        00          COMMON/BORDIV/INFORT(70)
000010        00    C
000011        00            INCLUDE BTBDV
000012        00    C     NEXT LINE ADED FOR RED ARMY RESERVE POOL, DEC 78
000013        01            INCLUDE BTRDV
000014        00            INCLUDE BTBDE
000015        00          COUNT=0.0
000016        00          SUMIFP=0.0
000017        00          SUMSTA=0.0
000018        00    C     NEXT LINE ADED FOR RED ARMY RESERVE POOL, DEC 78
000019        00          IF(ISIDE .EQ. 2) GO TO 48
000020        00          CALL CINDEX(INDIV,BTBVTE,INDEX,LOVER)
000021        00          CALL PIK(BDIV(INDEX),LOVER+BSBVHB,BLBVHB,IGBDE)
000022        00          LOVER=LOVER+BTBVEE
000023        00          DO 100 I=1,3
000024        00          IF (I.EQ.IGBDE) GO TO 100
000025        00          COUNT=COUNT+1.0
000026        00          CALL PIK(BDIV(INDEX),LOVER+BSBDST,BLBDST,ISTB)
000027        00          SUMSTA=SUMSTA+FLOAT(ISTB)
000028        00    C     NEXT LINE ADDED FOR BORDER DIV, OCT 78
000029        00          IF(INFORT(INDIV) .LT. 0) GO TO 100
000030        00          CALL PIK(BDIV(INDEX),LOVER+BSBDNO,BLBDNO,IBDE)
000031        00          SUMIFP=SUMIFP+STATD(IBDE,1)
000032        00    C     NEXT LINE CORRECTED, SEP 78
000033        00    100   LOVER = LOVER +BTBVEE
000034        00    C     NEXT 5 LINES ADDED TO INCLUDE CAV FP, SEP 78
000035        00          IF (NHELIB.EQ.0) GO TO 2100
000036        00          BBHIFP = 0.
000037        00          DO 3200 I=1,NHELIB
000038        00          BBHIFP=BBHIFP+DVHELI(I,INDIV)*BHIFP(INDIV)
000039        00     3200 CONTINUE
000040        00     2100 SUMSTA=SUMSTA/COUNT
000041        00    C     NEXT LINE ADDED FOR BORDER DIVS, SEP 78
000042        00          IF(INFORT(INDIV) .LT. 0) GO TO 33
000043        00          RETURN
000044        00    C     NEXT 3 LINES ADDED FOR BORDER DIVS, SEP 78
000045        00       33 BBHIFP = 0.02
```

```
000046   00          SUMIFP = 0.0001
000047   00          RETURN
000048   00    C    NEXT 10 LINES ADDED FOR RED ARMY RESERVE POOL, DEC 78
000049   00       48 CALL CINDEX(INDIV,BTRVEE,INDEXD,LOVERD)
000050   00          CALL PIK(RDIV(INDEXD),LOVERD+BSRVST,BLRVST,ISTD)
000051   00          SUMSTA = ISTD
000052   00          SUMIFP = STATD(INDIV,2)
000053   00          BBHIFP = 0.
000054   00          DO 55 J=1,NHELIR
000055   00          DO 55 I=1,3
000056   00          BBHIFP = BBHIFP+RDHELI(J,INDIV)*HRIFP(I,4,INDIV)
000057   00       55 CONTINUE
000058   00          RETURN
000059   00          END

END ELT.

BHDG,P  •••••• CALCFP/HL ••••••

@ELT,L 75PRINT1,CALCFP/HL
ELT007 573RIA 02/27/79 14:19:51 (4,)
000001   00          COMPILER (XM = 6)
000002   00          SUBROUTINE CALCFP (RTOIFP,IRQST,ISIDE)
000003   00            INCLUDE PROC
000004   00    C
000005   00    C---------ROUTINE TO CALCULATE IFP RATIOS FOR BOTH CORPS AND DIVISIONS
000006   00    C
000007   00          COMMON/BNIFPS/BBNIFP(50),BHLIFP(5),BAIFP,RBNIFP(50),RAIFP
000008   00          COMMON/CENIFP/ENIFP2(2),FIFP7
000009   00    C
000010   00    C  STATUS FILE PACKED
000011   00    C ARTY DATA  (ARTSTA(14,450),ARTBNT(14,15,2),CANNON(46,8,2) IN BDEDIV)   A74   47
000012   00          COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),          A74   48
000013   00         •                NDIVGS(2),NASGRT(2)                               A74   49
000014   00    C  ARTSTA=ARTILLERY STATUS FILE                                         A74   50
000015   00    C  IARTYP=QUANTITY OF TYPES OF ARTY BNS                                 A74   51
000016   00    C  ARTBNT=ARTY BN TYPE DESCRIPTIONS                                     A74   52
000017   00    C  CANNON=ARTY TUBE TYPE DESCRIPTIONS                                   A74   53
000018   00    C  ALNGS=NONDIV GS ARTY STATUS FILE                                     A74   54
000019   00    C  NARTUB=QUANTITY OF ARTY TUBE TYPES                                   A74   55
000020   00    C  NONDIV=QUANTITY OF NON DIV BNS + REINFORCING ARTY BNS                A74   56
000021   00    C  NDIVGS=QUANTITY OF NON DIV ARTY BNS IN THEATER                       A74   57
000022   00    C  NASGRT=QUANTITY OF DIV AND BDE ARTY BNS                              A74   58
000023   00    C                                                                       A74   59
000024   00          COMMON/ARTFP/AVGSAH(4,2),ARTYFP(15,4,2),SARTB(8),SARTR(8),FRART(2)A74   60
000025   00          INTEGER SARTB,SARTR                                               A74   61
000026   00    C  SARTB,SARTR=SUM OF NON DIV GS ARTY BN BY BN TYPE                     A74   62
000027   00    C  AVGSAH=AVERAGE ME IFP (SUM AT ALA AP) FOR NON DIV GS ARTY (AVG BN)   A74   63
000028   00    C   ARTYFP=ME IFP FOR EACH ARTY BN TYPE FOR AT ALA AP BY SIDE           A74   64
000029   00    C  ARTYFP(BN TYPE,4,SIDE.=SUM AT+ALA+AP IFP FOR ME                      A74   65
000030   00    C  FRART=AVERAGE INCREASED FIRE RATE FOR ALL TUBE TYPES                 A74   66
000031   00          COMMON/CHDATA/ICORPS,MSNCR,MINICR(2),ARTYCR,ACCR,ICRRT,NDIV,INDIV,
000032   00         •              ISPT,KPOSN,IDIV(5),MINIDV(2,5),DMIFP(3,5),DAIFP(5),
000033   00         •              NACSW(5),NARTY(5),NHELPT(5)
000034   00          INTEGER ACCR                                  @ARTY74  352
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000035  00        COMMON/DECBUF/INDECC,IDECC(5,90)
000036  00        COMMON/DVSFLG/ IDVFL
000037  00  C     NEXT LINE MODIFIED FOR BORDER DIVS, OCT 78
000038  01        COMMON/SMALST/ SMIFP,ISMFD
000039  01  C     NEXT LINE ADDED FOR BORDER DIVS, OCT 78
000040  01        COMMON/BORDIV/INFORT(70)
000041  00  C     SMIFP=RATIO WITHOUT WEAKEST OR RESERVE DIVISION IN CORPS @AUG 78
000042  00        DATA IDVFL/0/
000043  00        DIMENSION DECC(5,90)
000044  00        EQUIVALENCE (IDECC,DECC)
000045  00        COMMON/DIVMOV/ IDVMID(90,2),RATIDV(90,2),NUMDIV(2),DIVIFP(90),
000046  00       *DPCIFP(90)
000047  00  C  BIGHEL IS AVERAGE HELICOPTER 3X5 IFP USED BY RED IN ESTIMATION
000048  00  C  BLUE DIV =1-50  HELIFP
000049  00  C  BLUE CORPS =51-110  HELIFP
000050  00        DIMENSION INDEN(3)
000051  00        DATA INDEN/1,1,2/
000052  00  C
000053  00        SMIFP=0.                                              @WK 280
000054  00  C---------HOUSEKEEPING FOR ROUTINE
000055  00        INDEXF=MSNCR+1
000056  00        INDEXE=INDEN(INDEXF)
000057  00        IF (IRQST.NE.0) GO TO 4000
000058  00  C
000059  00  C---------REQUEST IS FOR FULL CORPS - ENEMY IFPS ALREADY CALCULATED
000060  00        EIFP=ENIFP2(INDEXE)
000061  00        DECC(3,INDECC)=EIFP
000062  00        FIFP7=0.
000063  03  C     NEXT LINE ADDED FOR BORDER DIVS, OCT 78
000064  03        ISMFD = 7
000065  00        IF ((ISIDE.EQ.2).OR.(NHELIB.EQ.0)) GO TO 2000
000066  00        DO 3100 I=1,NHELIB
000067  00        FIFP7=FIFP7+CRHELI(I,ICORPS)*BHIFP(ICORPS+70)
000068  00   3100 CONTINUE
000069  00   2000 DO 3000 I=1,NDIV
000070  00        IF(I.EQ.IRDIV) SMIFP=DMIFP(INDEXF,I)                  @WK 281
000071  00          FIFP7=FIFP7+DMIFP(INDEXF,I)
000072  00   3000 CONTINUE
000073  00        AIFP=AVGSAR(4,ISIDE)                    @ARTY74  354
000074  00        FIFP7=FIFP7+AIFP*ARTYCR                   @ARTY74  357
000075  00        DECC(2,INDECC)=FIFP7
000076  00        IF (IRDIV.NE.0) GO TO 6000
000077  00        SMIFP=1000000.
000078  00  C     MODIFICATIONS FOR LIGHT FORCES; LOOK FOR ONLY THOSE DIVS
000079  00  C      WHICH ARE (1) NORMAL (NON-BORDER) DIVISION, AND (2) HAVE AT
000080  00  C      LEAST ONE FLANK DIV WHICH IS NORMAL (TO OCCUPY VACATED FRONT
000081  00  C      SHOULD DIV BE RECONSTITUTED)
000082  00        ISMFD = 0
000083  00  C     ISMFD = INDEX (1-5) OF WEAKEST NORMAL DIV IN CORPS WITH A
000084  00  C      NORMAL DIV AS A FLANK NEIGHBOR.
000085  00        DO 3001 I=1,NDIV
000086  02  C     NEXT 19 LINES ADDED FOR BORDER DIVS, OCT 78
000087  00        IF(ISIDE .EQ. 2) GO TO 2989
000088  00        ID = IDIV(I)
000089  00        IF(INFORT(ID) .NE. 0) GO TO 3001
000090  00  C     DOES THIS NORMAL DIV HAVE A FLANK OCCUPIED BY A NORMAL DIV?
000091  00        IHI = MINIDV(2,I) +1
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000092  00        ILI = MINIDV(1,I) -1
000093  00        INXTD = 0
000094  00        DO 2991 KJ=1,NDIV
000095  00        ID = IDIV(KJ)
000096  00        IF(IHI.NE. MINIDV(1,KJ)) GO TO 2988
000097  00        IF(INFORT(ID) .NE. 0) GO TO 2991
000098  00        INXTD = KJ
000099  00        GO TO 2993
000100  00   2988 IF(ILI.NE. MINIDV(2,KJ)) GO TO 2991
000101  00        IF(INFORT(ID) .NE. 0) GO TO 2991
000102  00        INXTD = KJ
000103  00        GO TO 2993
000104  00   2991 CONTINUE
000105  00   C
000106  00   2993 IF(INXTD.EQ.0) GO TO 3001
000107  00   2989 IF (DMIFP(INDEXF,I).GE.SMIFP) GO TO 3001
000108  00          SMIFP=DMIFP(INDEXF,I)
000109  00   C    NEXT LINE ADDED FOR BORDER DIVS, OCT 78
000110  00        ISMFD= I
000111  00   3001 CONTINUE
000112  00   C    SMIFP = IFP OF WEAKEST OR RESERVE DIVISION IN CORPS  BWK 282
000113  00        DECC(2,INDECC)=FIFP7
000114  00        GO TO 6000
000115  00   C
000116  00   C----------REQUEST IS FOR INDIVIDUAL DIVISION
000117  00    4000 RTOIFP=0.
000118  00         IF (IRQST.EQ.IRDIV) GO TO 9999
000119  00         CALL RTVFPC (MINIDV(1,IRQST),MINIDV(2,IRQST),ISIDE)
000120  00         EIFP=ENIFP2(INDEXE)
000121  00         FIFP7=DMIFP(INDEXF,IRQST)*DAIFP(IRQST)
000122  00         IF (MSNCR.EQ.2) GO TO 6000
000123  00         TEMP=FIFP7
000124  00         FIFP7=EIFP
000125  00         EIFP=TEMP
000126  00   C
000127  00   C----------CALCULATE FORCE RATIO
000128  00    6000 IF(EIFP.GT.0.) GO TO 6100
000129  00         RTOIFP=100.
000130  00   C    NEXT LINE ADDED FOR FP RATIO WITHOUT WEAKEST CORPS, AUG 78
000131  00         SMIFP = 100.
000132  00         GO TO 9999
000133  00    6100 RTOIFP=FIFP7/EIFP
000134  00   C    NEXT LINE ADDED FOR FP RATIO WITHOUT WEAKEST CORPS, AUG 78
000135  00         SMIFP =(FIFP7 -SMIFP)/EIFP
000136  00   C    NEXT LINE ADDED FOR BORDER DIVS, OCT 78
000137  01         IF(ISMFD .EQ.0) SMIFP = 0.0001
000138  00   C
000139  00   C----------EXIT
000140  00    9999 IF(MSNCR.EQ.2) RETURN
000141  00         IF(IRQST.EQ.0) RETURN
000142  00         TEMP=FIFP7
000143  00         FIFP7=EIFP
000144  00         EIFP=TEMP
000145  00         RETURN
000146  00         END

END ELT.
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@MDG,P  ••••••  CANDTE/REDMOV  ••••••

@ELT,L 75PRINTI.CANDTE/REDMOV
ELT007 573RIA 02/27/79 14:19:54 (4,)
000001        00          COMPILER (XM=1)
000002        00          SUBROUTINE CANDTE(JARMY,ICND)
000003        00            INCLUDE PROC
000004        00    C
000005        00    C  THIS SUBROUTINE FINDS THE WEAKEST ONLINE UNIT IN JARMY
000006        00    C  ICND=INDEX OF WEAKEST ONLINE DIV IN JARMY
000007        00    C
000008        00    C
000009        00    C            •••••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000010        00    C
000011        00    C     NEXT 2 LINES MODIFIED FOR 9 ARMY RESERVE DIVS, SEP 78
000012        00          COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000013        00         •                RPOOL(9,3,6),RPOOLC(6)
000014        00          INTEGER RPOOLC
000015        00            INTEGER RPOOL
000016        00          REAL MARGIN
000017        00    C
000018        00    C  IDEFSW = DEFENSE SWITCH
000019        00    C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000020        00    C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000021        00    C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000022        00    C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000023        00    C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000024        00    C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000025        00    C
000026        00    C  LISTPL(4,6)
000027        00    C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000028        00    C           4 = DIV INDEXES OF WEAK DIVS
000029        00    C           6 = PARENT ARMY HQ
000030        00    C  LISTLC(6)
000031        00    C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000032        00    C  RPOOL(4,3,6)
000033        00    C           LIST OF REPLACEMENT DIVS
000034        00    C           4 = DIV INDEXES
000035        00    C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000036        00    C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000037        00    C           6 = PARENT ARMY HQ
000038        00    C  RPOOLC(6)
000039        00    C           COUNT OF ARMY RESERVE DIVS
000040        00    C
000041        00    C
000042        00    C
000043        00          KOUNT=LISTLC(JARMY)
000044        04    C     WRITE(17,45) JARMY,ICND,KOUNT
000045        04    C  45 FORMAT(' CANDTE -- ARMY,ICND,KOUNT=',3I3)
000046        00          IF (KOUNT.LE.0) RETURN
000047        00          IF (KOUNT.GT.1) GO TO 20
000048        00          ICND=LISTPL(KOUNT,JARMY)
000049        00     1000 RETURN
000050        00       20 WEAKST=10000000.
000051        00    C     NEXT LINE MODIFIED FOR MORE ARMY RESERVE DIVS, SEP 78
000052        00            DO 25 I=1,KOUNT
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000053  00          INDIV=LISTPL(1,JARMY)
000054  00    C     IF(INDIV.LE.0) GO TO 25     @CANCELED NOV 78
000055  00    C   NEXT 4 LINES ADDED FOR MULTIPLE CANDIDATES, OCT 78
000056  00          KNTRP = RPOOLC(JARMY)
000057  00          DO 57 J=1,KNTRP
000058  00          IF(INDIV .EQ. RPOOL(J,2,JARMY)) GO TO 25
000059  00       57 CONTINUE
000060  00    C   NEXT 5 LINES MODIFIED TO INCLUDE CAV IN BLDIFP, SEP 78
000061  00    C     BBHIFP=BHIFP(INDIV)    @CANCELLED SEP 78
000062  00    C  ADD BDE
000063  00    C   NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000064  01          CALL BLDIFP(INDIV,CUMIFP,STATE,BBHIFP,1)
000065  00    C     FIRPOW=(BBHIFP+CUMIFP)*STATE   @REPLACED SEP 78
000066  00          FIRPOW= CUMIFP*STATE*0.01 +BBHIFP
000067  00          IF (FIRPOW.GT.WEAKST) GO TO 25
000068  00          ICND=INDIV
000069  00          WEAKST=FIRPOW
000070  00       25 CONTINUE
000071  04    C     WRITE(17,33) ICND
000072  04    C33   FORMAT(10X,'*CANDTE* SELECTS WEAKEST WOLD = DIV',I3)
000073  00          RETURN
000074  00          END

END ELT.

@HDG,P •••••• CB/HL ••••••

@ELT,L 75PRINT1.CB/HL
ELT007 S73R1A 02/27/79 14:19:55 (4,)
000001  00          COMPILER (XM = 1)
000002  00          SUBROUTINE CB (WIDTHB,WIDTHR,INDBDE,NGAGMT,BAB,RAB)
000003  00    C  COMPUTE ARTY IFP BNS AMMO CONSUMPTION AND COUNTER BATTERY FIRE
000004  00             INCLUDE PROC
000005  00    C
000006  00    C  WIDTHB=PERCENT OF BLUE UNIT (BDE) IN ENGAGEMENT
000007  00    C  WIDTHR=PERCENT OF RED UNIT (DIV) IN ENGAGEMENT
000008  00    C  INDBDE= INDEX (1-3) OF BLUE BDE
000009  00    C  NGAGMT = ENGAGEMENT TYPE CODE (1,...,8)
000010  00    C  BAB= QTY BLUE ARTY BNS,,RAB= QTY RED ARTY BNS
000011  00    C
000012  00          COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),
000013  00         *              IBDE(3),MINB(2,3),MANBNB(50,3),MSNB(3),IDRB(3),
000014  00         *              IGRB(3),IDSB(3),LCAB(3),IHNB(3),IGBDE,JARTPB,IBHPCT,
000015  00         *              IDSART(3),IQDS(3),IBDECT
000016  00          INTEGER DSABNB,DGABNB,GSABNB,ACSQB
000017  00             COMMON/PRTSW/ IPRINT(2),IPP,MINIPL,MINIPH,JPP
000018  00    C   NEXT LINE ADDED FOR DETAIL PRINT TO TAPE, OCT 78
000019  00             COMMON/IOUNIT/IO1,IO2,IO6
000020  00          COMMON/XLTYPE/ SHARTY(2,2)
000021  00    C     ••••• SHARTY(1,SIDE) = SHARE OF CB APIFP FROM ARTY
000022  00    C     ••••• SHARTY(2,SIDE) = SHARE OF CB AT/ALA FROM ARTY
000023  00    C     •••••      REMAINDER OF FIREPOWER IS FROM CLOSE AIR SUPPORT
000024  00          COMMON/NPERD/ NTCYC,NACYC,NCCYC,NDCYC
000025  00          COMMON/REM/ARTYMB(3),ARTYMR,TOTGSB(3),TOTGSR(3),RMCASB,RMCASR
000026  00          COMMON/GSCAS/ CASMB(3), CASMR, PCASCB(2)
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000084  00  C  ECBAP(ISIDE) - TOTAL AP IFP IN COUNTER BATTERY FIRE
000085  00        DIMENSION       GSTOT(2),DDSGS(2),DIVNGS(2),CBDIV(2),SHARE(2)
000086  01  C     DIMENSION DSARTF(3,2),TOTIFP(3,2),FIRPOW(3),ACIFP(3,2) @C 11/78
000087  01        DIMENSION TOTIFP(3,2), FIRPOW(3), ACIFP(3,2)
000088  00  C  DSARTF(AT ALA AP,ISIDE)=FULL ARTY IFP,,ACIFP - IFP PER CAS SQUADRON
000089  00        DIMENSION IBD(2),IFRS(2),QDS(2),GSDS(2),TOTART(2),DIVGS(2),IDIVGS(
000090  00       * 2),WIDTH(2),CBBNS(2),PCNT(2)
000091  00        INTEGER GSDS
000092  00        EQUIVALENCE (TOTGSB(1),TOTIFP(1,1))
000093  00  C     NEXT 3 LINES ADDED FOR ARTY AGAINST BUNKERS, NOV 78
000094  00        COMMON/CAVBDE/ICRPB,IDIVB
000095  00        COMMON/BORDIV/INFORT(70)
000096  04        DIMENSION FPTUBE(8)/0.095,.190,.080,.052,.0005,.038,.115,.006/
000097  00  C
000098  00        LOGICAL ZPQ
000099  00        ZPQ = .FALSE.
000100  00        IF(IPP*JPP.GT.0) ZPQ = .TRUE.
000101  00  C
000102  00  C BLUE  SIDE
000103  00  C  INDEX OF BDE DS BN
000104  00        IBD(1)=IDSART(INDBDE)
000105  00  C  INCREASED FIRE RATE SWITCH
000106  00        IFRS(1)=IDRB(INDBDE)
000107  00  C  QTY DS ARTY BNS ASG TO UNIT (EXCLUSIVE OF GS-TO-DS CONVERTS)
000108  00        QDS(1)=IQDS(INDBDE)
000109  00  C  GS TO DS SWITCH
000110  00        GSDS(1)=IGRB(INDBDE)
000111  00  C  TOTAL DS BNS ASSIGNED TO UNIT(INCLUDING GS TO DS CONVERTS)
000112  00        TOTART(1)=ARTYB(INDBDE)
000113  00  C  QTY DIV GS BNS/BDE PRIOR TO GS-TO-DS CONVERSION
000114  00        DIVGS(1)=FLOAT(DGABNB)/FLOAT(IBDECT)
000115  00  C  TYPE-INDEX OF DIV GS ARTY BN
000116  00        IDIVGS(1)=DSABNB
000117  00  C  PERCENT OF BLUE BDE IN ENGAGEMENT
000118  00        WIDTH(1)=WIDTHB
000119  00  C  QTY GS ARTY BNS NOT ASSIGNED DS ROLE, PER BLUE BDE
000120  00        CBBNS(1)=ARTYMB(INDBDE)
000121  00        CONST=1.0
000122  00        SHARE(1)=BGSSHR
000123  00  C  QTY CAS SQDNS NOT ASGD DS ROLE, PER BLUE BDE (FROM .GETBV)
000124  00        CASM(1) = CASMB(INDBDE)
000125  00        SHARTY(1,1)=0.
000126  00        SHARTY(2,1)=0.
000127  00  C
000128  00  C  RED  SIDE
000129  00  C  INDEX OF DIV DS BN
000130  00        IBD(2)=DSABNR
000131  00  C  INCREASED FIRE  RATE SWITCH
000132  00        IFRS(2)=IDRR
000133  00  C  QUANT OF DS BNS IN RED DIV
000134  00        QDS(2)=IRDS
000135  00  C  GS TO DS SWITCH
000136  00        GSDS(2)=IGRR
000137  00  C  TOTAL DS BNS ASSIGNED TO RED DIV(INCLUDING GS TO DS CONVERTS)
000138  00        TOTART(2)=ARTYR
000139  00  C  QUANT OF DIV GS BNS
000140  00        DIVGS(2)=JARTPR
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000191      00   C  INDEX OF DIV GS
000192      00         IDIVGS(2)=DGABNR
000193      00   C  PERCENT OF RED DIV IN ENGAGEMENT
000194      00         WIDTH(2)=WIDTHR
000195      00   C  QUANT OF GS BNS UNASSIGNED DS ROLE
000196      00         CBBNS(2)=ARTYMR
000197      00         SHARE(2)=RGSSHR
000198      00   C  QUANT OF CAS UNASGD DS ROLE PER RED DIV (FROM *GETRV)
000199      00         CASM(2) = CASMR
000150      00         SHARTY(1,2)=0.
000151      00         SHARTY(2,2)=0.
000152      00   CCCCC
000153      00                DO 5000 IS=1,2
000154      00         IF(ZPQ)WRITE(106,8120) IS, QDS(IS), IFRS(IS),
000155      00        $  CASM(IS), CBBNS(IS), DIVGS(IS), GSDS(IS)
000156      00    8120 FORMAT(1HO,'CB*,SIDE',I2,
000157      00        *' ORG DS BNS=',F5.2,', INCRSD FIRE SW=',I2,' QTY GS CAS=',F6.2
000158      00        $ /10X,'UNASGD GS ARTY BNS=',F5.2,' (ORG GS BNS=1,F5.2,') ',
000159      00        - 'GS-TO-DS SW=',I2)
000160      00         DO 2 I=1,3
000161      01      C  DSARTF(I,IS)=0.   @CANCELLED NOV 78
000162      00         ARTF(I,IS)=0.
000163      00    2    CONTINUE
000164      00   C  INITIALIZE ARRAYS FOR COUNTER BATTERY IFPS
000165      00         AA(1,IS) = 0.
000166      00         AA(2,IS) = 0.
000167      00         ECBAP(IS) = 0.
000168      00   C  BREAK ARTY INTO DS   GS   AND NON DIV GS
000169      00              IF(IS .NE. 1) GO TO 14
000170      00         NDSRES = 0
000171      00         IF(IRSRB .GT. 0) NDSRES = IQDS(IRSRB) * IDSB(INDBDE)
000172      00         QDSRES = FLOAT(NDSRES)
000173      00         GSTOT(1) = TOTART(1) - (QDS(1) + QDSRES)
000174      00         CASM(1) = CASM(1) * WIDTHB
000175      00                DO 12 JT = 1,3
000176      00         ACIFP(JT,1) = BACIFP(JT)
000177      00      12 CONTINUE
000178      00         GO TO 17
000179      00      14 CONTINUE
000180      00         GSTOT(2) = TOTART(2) - QDS(2)
000181      00         CASM(2) = CASM(2) * WIDTHR
000182      00                DO 16 JT = 1,3
000183      00         ACIFP(JT,2) = RACIFP(JT)
000184      00      16 CONTINUE
000185      00      17 CONTINUE
000186      00          DDSGS(IS)=AMIN1(GSTOT(IS),DIVGS(IS))
000187      00          DDSGS(IS)=GSDS(IS)*DDSGS(IS)
000188      00         DIVGS(IS)=GSTOT(IS)-DDSGS(IS)
000189      00         IBOART(IS)=IBD(IS)
000190      00         IGSDIV(IS)=IDIVGS(IS)
000191      00         IRESDS(2)=0
000192      00   C  EXAMINE ALL THREE POSSIBLE CANNON TUBE TYPE
000193      00         IB=IBD(IS)
000194      00          IEN1=0
000195      00          IEN2=0
000196      00          IEN3=0
000197      00          IEN4=0
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000198  00          IEN5=0
000199  00          IEN6=0
000200  00            DO 100 J=5,11,3
000201  00          IF(IB.LT.1) GO TO 7
000202  00          K=ARTSTA(J,IB)
000203  00          FACTOR=AMAX1(1.0,FLOAT(IFRS(IS))*CANNON(96,K,IS))
000204  00          RATE=IFRS(IS)
000205  00    C  DS
000206  00          IF(QDS(IS).LT.14) GO TO 7
000207  00          IF(ARTSTA(J+2,IB).LE.0.) GO TO 7
000208  00          TUBES = ARTSTA(J+2,IB)*WIDTH(IS)
000209  00          DO 10 N=1,3
000210  00    C  COMPUTE FULL AND ADJUSTED AT ALA AP
000211  00          NO=5+8*(N-1)+NGAGMT
000212  00          FIRPOW(N) = TUBES*CANNON(NO,K,IS)*FACTOR
000213  01    C     DSARTF(N,IS)=DSARTF(N,IS)+FIRPOW(N)   *CANCELLED NOV 78
000214  00    C  COMPUTE ROUNDS EXPENDED AND SHORTAGE CONSTRAINT IF ANY
000215  00       10 CONTINUE
000216  01    C    NEXT 2 LINES ADDED FOR ARTY AGAINST BUNKERS, NOV 78
000217  03          IF(INFORT(IDIVB).NE.0 .AND. IS.EQ.2)
000218  01         . FIRPOW(1)= TUBES*FPTUBE(K)*FACTOR
000219  00          CALL QPMOD(IB,WIDTH(IS),IS,CONST,NGAGMT,RATE,0,1,K,IEN1,TUBES)
000220  00          IEN1=IB
000221  00          DO 5 N1=1,3
000222  00          ARTF(N1,IS)=ARTF(N1,IS)+FIRPOW(N1)*CONST
000223  00        5 CONTINUE
000224  00    C
000225  00    C       ANY RESERVE ARTY ASSIGNMENT ??
000226  00    C
000227  00       7  IF (IS.EQ.2.OR.IRSRB.LT.1) GO TO 21
000228  00    C  BLUE - WE HAVE A RES BDE. CHECK ASSIGNMENT OF ITS DS ARTY BN (IF ANY)
000229  00          IF(NDSRES .LT. 1) GO TO 21
000230  00    C  WE HAVE A RESERVE BDE WITH A DS BN ASSIGNED TO ONLINE BDE
000231  00          IRB=IDSART(IRSRB)
000232  00                    K=ARTSTA(J,IRB)
000233  00          IRESDS(1)=IRB
000234  00          IF (ARTSTA(J+2,IRB).LT.1) GO TO 21
000235  00          TUBES=ARTSTA(J+2,IRB)*WIDTH(IS)
000236  00           DO 18 N=1,3
000237  00           NO=5+8*(N-1)+NGAGMT
000238  00           FIRPOW(N)=TUBES*CANNON(NO,K,IS)*FACTOR
000239  00       18 CONTINUE
000240  00    C    NEXT 2 LINES ADDED FOR ARTY AGAINST BUNKERS, NOV 78
000241  03          IF(INFORT(IDIVB).NE.0 .AND. IS.EQ.2)
000242  00         . FIRPOW(1)= TUBES*FPTUBE(K)*FACTOR
000243  00    C   COMPUTE ROUNDS EXPENDED AND SHORTAGE CONSTRAINT IF ANY
000244  00           CALL QPMOD(IRB,WIDTH(IS),IS,CONST,NGAGMT,RATE,0,2,K,IEN2,TUBES)
000245  00          IEN2=IRB
000246  00          DO 19 N1=1,3
000247  00          ARTF(N1,IS)=ARTF(N1,IS)+FIRPOW(N1)*CONST
000248  00       19 CONTINUE
000249  00    C  EXAMINE RES NED DIV DS CONVERTED TO GS
000250  00    C
000251  00    C  GS TO DS
000252  00       21 IF(GSDS(IS) .LE. 0) GO TO 100
000253  00    C  YES WE ARE CONVERTING
000254  00    C  ALL DIV GS WILL BE CONVERTED BEFFORE NON DIV GS
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000255   00          IF (DIVGS(IS).LE.0.0) GO TO 100
000256   00          ID=IDIVGS(IS)
000257   00          IF(ID.LT.1) GO TO 100
000258   00          K=ARTSTA(J,ID)
000259   00          FACTOR=AMAX1(1.,FLOAT(IFRS(IS))*CANNON(46,K,IS))
000260   00          RATE=IFRS(IS)
000261   00          SWIDTH=SHARE(IS)*WIDTH(IS)
000262   00          TUBES=ARTSTA(J+2,ID)*SWIDTH
000263   00          IF(TUBES.LE.0.) GO TO 100
000264   00          DO 22 N=1,3
000265   00          NO=5+8*(N-1)+NGAGMT
000266   00          FIRPOW(N)=TUBES*CANNON(NO,K,IS)*FACTOR
000267   00       22  CONTINUE
000268   00    C     NEXT 2 LINES ADDED FOR ARTY AGAINST BUNKERS, NOV 78
000269   03          IF(INFORT(IDIVB).NE.0 .AND. IS.EQ.2)
000270   00         * FIRPOW(1)= TUBES*FPTUBE(K)*FACTOR
000271   00    C  COMPUTE ROUNDS EXPENDED AND SHORTAGE CONSTRAINT IF ANY
000272   00          CALL QPMOD(ID,SWIDTH,IS,CONST,NGAGMT,RATE,0,3,K,IEN3,TUBES)
000273   00          IEN3=ID
000274   00          DO 25 NI=1,3
000275   00           ARTF(NI,IS)=ARTF(NI,IS)+FIRPOW(NI)*CONST
000276   00       25  CONTINUE
000277   00      100  CONTINUE
000278   00      CC
000279   00    C  ANY NON DIV GS ARTY EMPLOYABLE TO REINFORCE DS ARTY ?
000280   00    C     IF (DIVNGS(IS).LE.0.0 .OR. GSDS(IS).LE.0.0) GO TO 300
000281   00          IF(DIVNGS(IS) .LE. 0.0 .OR. GSDS(IS) .LE. 0) GO TO 300
000282   00    C  EXAMINE ALL EIGHT POSSIBLE CANNON TYPES
000283   00          IF (ALNGS(2,IS) .LT. 0.01) GO TO 300
000284   00          J=4
000285   00          QUANI=DIVNGS(IS)/ALNGS(2,IS)
000286   00             DO 200 I=1,8
000287   00          J=J+2
000288   00           IF (ALNGS(J,IS).LE.0.0) GO TO 200
000289   00          FACTOR=AMAX1(1.,FLOAT(IFRS(IS))*CANNON(46,I,IS))
000290   00          RATE=IFRS(IS)
000291   00          PC=WIDTH(IS)*QUANI
000292   00          TUBES=ALNGS(J,IS)*PC
000293   00          DO 150 N=1,3
000294   00          NO=5+8*(N-1)+NGAGMT
000295   00          FIRPOW(N)=TUBES*CANNON(NO,I,IS)*FACTOR
000296   00      150 CONTINUE
000297   00    C     NEXT 2 LINES ADDED FOR ARTY AGAINST BUNKERS, NOV 78
000298   03          IF(INFORT(IDIVB).NE.0 .AND. IS.EQ.2)
000299   03         * FIRPOW(1)= TUBES*FPTUBE(I)*FACTOR
000300   00    C    ANY CONSTRAINT ON IFP ??
000301   00          CALL QPMOD(0,PC,IS,CONST,NGAGMT,RATE,0,4,I,IEN4,TUBES)
000302   00          IEN4=-1
000303   00          DO 161 NI=1,3
000304   00           ARTF(NI,IS)=ARTF(NI,IS)+FIRPOW(NI)*CONST
000305   00      161 CONTINUE
000306   00      200  CONTINUE
000307   00    C
000308   00    C  COMPUTE COUNTER BATTERY FIRE
000309   00    C
000310   00    C  ANY UNASSIGNED GS ARTY BNS (EITHER DIV OR NON-DIV) ?
000311   00      300 CONTINUE
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000016  00        • CBTLOS(435,8),     CANNON(46,8,2),    BRIFP(3,5,5),
000017  00        • BMNIFP(3,4,50),    BHIFP(110),    BDIV(1657),
000018  00        • BACIFP(3),     AVAIL(154,2),    ARTSTA(14,530),
000019  00        • ARTBNT(14,15,2),     ACHIST(116,3),LNPHSE(3,3,2)      @PHASE 11JAN
000020  00            INTEGER BTSFEE,BTLGSF
000021  00         COMMON /SCALER/
000022  00        •  BTFEBA,   BTFEBM,   FMBIAS,   FMSCAL,  FMTHRS(2),
000023  00        •  KNTNFR,   MXNFR,    MXPDA,    MXPDC,   MXPDD,
000024  00        •  NBDIV,    NHELIB,   NHELIR,   NMINI,   NOWPDA,
000025  00        •  NOWPDC,   NOWPDD,   NRDIV,    OMEGA
000026  00    END
000027  00    BTACHA  PROC
000028  00    C---------BIT SPECIFICATIONS FOR ARMY/CORPS HISTORY ARRAY
000029  00          COMMON/BTACHA/BTAHEE,BSAHMW,BLAHMW,BSAHAF,BLAHAF,BSAHMF,BLAHMF
000030  00          INTEGER BTAHEE,BSAHMW,BLAHMW,BSAHAF,BLAHAF,BSAHMF,BLAHMF
000031  00    END
000032  00    BTARMY   PROC
000033  00    C---------BIT SPECIFICATIONS FOR ARMY ARRAYS
000034  00          COMMON/BTARMY/BTAREE,BSARMS,BLARMS,BSARLM,BLARLM,BSARHM,BLARHM,
000035  00        •               BSARTY,BLARTY,BSARAC,BLARAC,BSARRT,BLARRT,BSARNC,
000036  00        •               BLARNC,BSARRC,BLARRC,BSARSP,BLARSP,BSARPS,BLARPS,
000037  00        •               BSARCI,BLARCI
000038  00          INTEGER BTAREE,BSARMS,BLARMS,BSARLM,BLARLM,BSARHM,BLARHM,BSARTY,
000039  00        •         BLARTY,BSARAC,BLARAC,BSARRT,BLARRT,BSARNC,BLARNC,BSARRC,
000040  00        •         BLARRC,BSARCI,BLARCI
000041  00          INTEGER BSARSP,BLARSP,BSARPS,BLARPS
000042  00    END
000043  00    BTBDE    PROC
000044  00    C---------BIT SPECIFICATIONS FOR BLUE BRIGADE DATA
000045  00          COMMON/BTBDE/BTBDEE,BSBDNO,BLBDNO,BSBDLM,BLBDLM,BSBDHM,BLBDHM,
000046  00        •             BSBDMS,BLBDMS,BSBDST,BLBDST,BSBDCA,BLBDCA,BSBDDS,
000047  00        •             BLBDDS,BSBDDR,BLBDDR,BSBDGR,BLBDGR,BSBDHR,BLBDHR,
000048  00        •             BSBDQD,BLBDQD,BSBDNB,BLBDNB
000049  00          INTEGER BTBDEE,BSBDNO,BLBDNO,BSBDLM,BLBDLM,BSBDHM,BLBDHM,BSBDMS,
000050  00        •         BLBDMS,BSBDST,BLBDST,BSBDCA,BLBDCA,BSBDDS,BLBDDS,BSBDDR,
000051  00        •             BLBDDR,BSBDGR,BLBDGR,BSBDHR,BLBDHR,BSBDQD,BLBDQD,
000052  00        •             BSBDNB,BLBDNB
000053  00    END
000054  00    BTBDV    PROC
000055  00    C---------BIT SPECIFICATIONS FOR BLUE DIVISION DATA
000056  00          COMMON/BTBDV/BTBVTE,BTBVEE,BSBVLM,BLBVLM,BSBVHM,BLBVHM,BSBVDS,
000057  00        •             BLBVDS,BSBVDG,BLBVDG,BSBVGS,BLBVGS,BSBVAC,BLBVAC,
000058  00        •             BSBVRB,BLBVRB,BSBVAT,BLBVAT,BSBVHB,BLBVHB,BSBVHP,
000059  00        •             BLBVHP
000060  00          INTEGER BTBVTE,BTBVEE,BSBVLM,BLBVLM,BSBVHM,BLBVHM,BSBVDS,BLBVDS,
000061  00        •         BSBVDG,BLBVDG,BSBVGS,BLBVGS,BSBVAC,BLBVAC,BSBVRB,BLBVRB,
000062  00        •         BSBVAT,BLBVAT,BSBVHB,BLBVHB,BSBVHP,BLBVHP
000063  00    END
000064  00    BTCDHA   PROC
000065  00    C---------BIT SPECIFICATIONS FOR CORPS/DIVISION HISTORY ARRAY
000066  00          COMMON/BTCDHA/BTCHEE,BSCHMW,BLCHMW,BSCHAF,BLCHAF,BSCHMF,BLCHMF
000067  00          INTEGER BTCHEE,BSCHMW,BLCHMW,BSCHAF,BLCHAF,BSCHMF,BLCHMF
000068  00    END
000069  00    BTCORP   PROC
000070  00    C---------CORPS BIT SPECIFICATIONS
000071  00          COMMON/BTCORP/BTCREE,BSCRMS,BLCRMS,BSCRLM,BLCRLM,BSCRHM,BLCRHM,
000072  00        •             BSCRGS,BLCRGS,BSCRAC,BLCRAC,BSCRRT,BLCRRT,BSCRRD,
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000124  00          ENCODE(6,66,MSG(4)) LNTCYC
000125  00       66 FORMAT(13,3H OF)
000126  00          CALL COM(30,MSG)
000127  00           IF(ISWAP.NE.1)GO TO 14
000128  00           ENDFILE 8
000129  00           STATUS=CSF(2,'WFREE 8  .  ')
000130  00           ISWAP=ISWAP+6
000131  00           STATUS=CSF(4,'WASG,T  8,U9,SAVEW  .   ')
000132  00       14  CONTINUE
000133  00       15  CONTINUE
000134  00           CALL THEMOD
000135  00           CALL PRTUNT(3)
000136  00       C
000137  00       C---------ARMY CYCLE LOOP HERE
000138  00            DO 3100 J=1,IAPT
000139  00         500 CALL ARMMOD
000140  00           IF (KELLOG.NE.0) GO TO 1000
000141  00           M=1
000142  00           CALL PRTUNT(3)
000143  00       C
000144  00       C---------CORPS CYCLE LOOP HERE
000145  00        1000  CALL CORMOD
000146  00           IF (KELLOG.NE.0) GO TO 500
000147  00           IF (NALLOC.NE.0) GO TO 2000
000148  00           L=1
000149  00           M=M+1
000150  00       C   CALL PRTUNT(3)
000151  00       C
000152  00       C---------DIVISION CYCLE LOOP HERE
000153  00        2000 CALL DIVMOD
000154  00           IF (NALLOC.NE.0) GO TO 1000
000155  00           CALL PRTF8A
000156  00       C   NEXT 3 LINES ADDED FOR OUTPUT TO TAPE, OCT 78
000157  00           IF(106.NE.29) GO TO 155
000158  00           END FILE 29
000159  00           IF(NDCYC.EQ.40 .OR. NDCYC.EQ.72) CALL TSWAP(0,DATA29)
000160  00         155 WRITE(17,712)NDCYC,CARAMM
000161  00         712 FORMAT(/' ART AMMO EXP THRU DIV CYC',I4,1X,8F12.0)
000162  00       C   NEXT 3 LINES ADDED TO REPORT BUNKER KILLS, JAN 79
000163  00           WRITE(17,158) RTANKL,TANK1L,TANK6L
000164  01         158 FORMAT('0THRU THIS CYCLE, BUNKERS HIT',F10.2,' RED TANKS,'
000165  00          *,' WHILE LOSING',2F10.2,' BUNKERS.')
000166  03           WRITE(17,168) ABNTNK,ABNAPC
000167  02         168 FORMAT(' THRU THIS CYCLE, BLUE UNITS ABANDONED',2F10.2,
000168  04          *' TANKS AND LIGHT ARMOR.')
000169  00       C   NEXT 3 LINES ADDED FOR AMMO & PERSONNEL BY WPN TYPE, MAR 78
000170  00           IF(MOD(NDCYC,20).NE.0) GO TO 3070
000171  00           ASSIGN 3070 TO LABLE
000172  00           GO TO 2300
000173  00        3070       IF (EOWSW.NE.0) GO TO 9999
000174  00           L=L+1
000175  00           IF (L.LE.IDPC) GO TO 2000
000176  00                CALL OWT (4)
000177  00           IF (M.LE.ICPA) GO TO 1000
000178  00               CALL OWT (3)
000179  00        3100   CONTINUE
000180  00               IF (TACSW.NE.0) CALL DIVMOD
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END ELT.

@HDG,P ****** COMIT ******

@ELT,L 75PRINT1.COMIT
ELT007 S73R1A 02/27/79 14:20:05 (1,)
000001  07          COMPILER (XM=1)
000002  07          SUBROUTINE COMIT
000003  07  C
000004  07  C     THIS SUBROUTINE COMMITS THE UNCOMMITTED BLUE RESERVE BRIGADE
000005  07  C      IN SUPPORT OF A BLUE BRIGADE WITH DRAW FOR AN ESTIMATED OUTCOME.
000006  07  C
000007  07           COMMON/ESTB/ISEC,JFLAG,IFLAG(6),IDES(3),ISPTSW(2),MSNBE(6),NDSB(6),
000008  07          .,NDRB(6),NGRB(6),MSNRE(6),MXMSNR(6),NBNR(5,6),MINISC(2,6),
000009  07          .KOUT(6),ITR(6),IDEFTP(6),RIFP(2)
000010  07               EQUIVALENCE (KOUT(1),KOUT1), (KOUT(2),KOUT2)
000011  09           COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),
000012  09          .                IBDE(3),MINB(2,3),MANBNB(50,3),MSNB(3),IORB(3),
000013  09          .                IGRB(3),IDSB(3),LCAB(3),IHRB(3),IGBDE
000014  07           COMMON/IOUNIT/IO1,IO2,IO6
000015  07  C
000016  07  C     IF ONE OF THE ON-LINE BDES HAS A DRAW, COMMIT RESERVE BDE IN
000017  07  C      SUPPORT OF THIS BRIGADE.
000018  07  C     IF BOTH ON-LINE BRIGADES HAVE A DRAW, USE THE FOLLOWING RULES
000019  07  C      FOR ASSIGNMENT OF RESERVE BRIGADE:
000020  07  C       1. BOTH ATTACKING = STRONGER RIFP
000021  07  C       2. BOTH DEFENDING OR DELAYING = WEAKER RIFP
000022  07  C       3. ATTK/DEF = ATTACKER
000023  07  C       4. DEF/DELAY = DELAYER
000024  07  C
000025  07               IF(KOUT1.NE.1 .AND. KOUT2.NE.1) GO TO 9999
000026  07               ISEC = 1
000027  07               IF(KOUT1 .NE. KOUT2) GO TO 6000
000028  07               IF(KOUT1 .EQ. 1) GO TO 5700
000029  07  C     NEITHER ON-LINE BDE HAS A DRAW -- RETURN
000030  07               GO TO 9999
000031  07  C     BOTH ON-LINE BDES HAVE A DRAW.
000032  07  C     DO BOTH ON-LINE BDES HAVE THE SAME MISSION?
000033  07   5700 IF(MSNBE(1) .NE. MSNBE(2)) GO TO 5720
000034  07  C     BOTH ON-LINE BDES HAVE SAME MISSION & A DRAW.
000035  07           IF(MSNBE(1).EQ.1 .OR. MSNBE(1).EQ.1) GO TO 5710
000036  07  C     BOTH ATTACKING - SUPPORT THE STRONGER RIFP
000037  07               IF(RIFP(2) .GT. RIFP(1)) ISEC = 2
000038  07               GO TO 7000
000039  07  C
000040  07  C     BOTH DEFENDING OR DELAYING - SUPPORT THE WEAKER RIFP:
000041  07   5710 IF(RIFP(2) .LT. RIFP(1)) ISEC = 2
000042  07               GO TO 7000
000043  07  C
000044  07  C     DIFFERENT MISSIONS, BUT BOTH HAVE DRAW OUTCOME:
000045  07   5720 IF(MSNBE(2) .EQ. 2) ISEC = 2
000046  07           IF(MSNBE(2) .EQ. 0) ISEC = 2
000047  07               GO TO 7000
000048  07  C
000049  07  C     ON-LINE BDES HAVE DIFFERENT OUTCOMES. SELECT BDE WITH DRAW:
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000050  07   4000 IF(KOUT2 .EQ.1) ISEC = 2
000051  07  C
000052  07  C     SET SWITCHES (IDES) TO SHOW WHICH BDE IS REINFORCED
000053  08   7000 IF((MINISC(2,ISEC)-MINISC(1,ISEC)).GT.0) GO TO 7200
000054  08            ISEC = 3 -ISEC
000055  08         IF((MINISC(2,ISEC)-MINISC(1,ISEC)).LT.1.OR.KOUT(ISEC).NE.1)RETURN
000056  07  C     THERE IS FRONTAGE.
000057  07   7200 IRES = 4 -ISEC
000058  07            IACT = 2 +ISEC
000059  07            MINISC(2,IRES) = MINISC(2,ISEC)
000060  07            MINISC(2,IACT) =(MINISC(1,ISEC)+MINISC(2,ISEC))/2
000061  07          MINISC(1,IACT) = MINISC(1,ISEC)
000062  07            MINISC(1,IRES) = MINISC(2,IACT)+1
000063  11  C       WRITE(106,5)ISEC,KOUT1,KOUT2,MSNBE(1),MSNBE(2),MINISC(1,IACT),
000064  11  C      *MINISC(2,IACT),MINISC(1,IRES),MINISC(2,IRES)
000065  11  C    5 FORMAT('0COMMIT RES BDE TO SUPPORT DRAW - BDE',I2,
000066  11  C      *', OUTCOMES:',2I2,', MISSIONS:',2I2,', SECTORS:',4I4)
000067  07            IDES(ISEC) = IACT
000068  07            IDES(3) = IRES
000069  07            IDES(3-ISEC) = 3 -ISEC
000070  07  C
000071  07  C     SET OUTCOMES FOR REINFORCEMENT TO DUMMY 'WIN'
000072  07            KOUT(ISEC) = 2
000073  07            KOUT(IRES) = 2
000074  07            MSNBE(IRES) = MSNBE(ISEC)
000075  07            MSNBE(3-ISEC) = MSNBE(ISEC)
000076  07            IRSRB = 0
000077  09  C     DIVIDE AIR CAV EQUALLY AMONG 3 BDES: 1/3 PER BDE
000078  09            DO 1017 I=1,3
000079  09    1017    IHRB(I) = 1
000080  10  C     SET ARTILLERY SWITCHES:
000081  10            NDRB(IRES) = 1
000082  10            NDRB(IACT) = 1
000083  10            NGRB(IACT) = 1
000084  10            NGRB(IRES) = 1
000085  07  C
000086  07   9999 RETURN
000087  07            END
```

END ELT.

@MDG,P •••••• DDEND/HL ••••••

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@ELT,L 75PRINT1.DDEND/HL
ELT007 573R1A 02/27/79 19120:07 (15,)
000001  11          COMPILER (XM = 1)
000002  11          SUBROUTINE DDEND
000003  11          INCLUDE PROC
000004  11          COMMON/USC/IUS(70)
000005  11              COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000006  11          COMMON/NPERD/ NTCYC,NACYC,NCCYC,NDCYC
000007  11           COMMON/SLOG  / PCTLOG(10,2),JSUB(3,4,2)
000008  11          COMMON/SWATCH/ IWARF,IUSSW,NSUPDV
000009  11  C---------ROUTINE TO ALLOCATE/DELIVER NEWLY ARRIVED RESOURCE UNITS
000010  11  C   DISTRIBUTION OF RESOURCES AS A FUNCTION OF UNITS RELATIVE
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000011      11    C  REQUIREMENT TO THAT OF TOTAL THEATER REQUIREMENT
000012      11    C
000013      11          COMMON/LOGC/EQPMNT(5,3,2),HOSPDL(2),PERTPL(2),DNBIKL(2),WIAHSP(2),
000014      11         1DNBIHP(2),PNBLOS(2),PRCASL(9,2),PRKIA(9,2),PRWIA(9,2),ASSIM(10,2)
000015      11          COMMON/BDECNT/ICTBDE,ICTDIV
000016      11    C     NEXT 4 LINES ADDED FOR BORDER DIVISIONS, DEC 78
000017      11          COMMON/BORDIV/INFORT(70)
000018      11          INTEGER BTFEBA
000019      11          COMMON/SSLIMT/ILO
000020      11          COMMON/BUNKER/TANK1(600),TANK6(600)
000021      11    C  TOTAL COUNT OF BLUE BDES=ICTBDE
000022      11    C  TOTAL COUNT OF RED DIVS=ICTDIV
000023      11          COMMON/GRABAX/POOLX(5,5,3),PEOPLX(10,3),DAVAIX(5,3),AVAILX(5,3)
000024      11    C  THIS IS UNITS RELATIVE REQUIREMNET
000025      11          COMMON/REQIT/REQUIR(45)
000026      11          COMMON/TRQMNS/RQMNTS(54,2)
000027      11          COMMON/TRQMNX/RQMNTX(5,3)
000028      11          COMMON/AVIL/PAVAIL(54),ALLOC(54)
000029      11          COMMON/AVILX/ ALLOCX(5,3)
000030      11    C  BLUE DIV UNPACKED DATA ARRAY
000031      11          COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),
000032      11         .              IBDE(3),MINB(2,3),MANBNB(50,3),MSNB(3),IDRB(3),
000033      11         .              IGRB(3),IDSB(3),LCAB(3),IHRB(3),IGBDE,JARTPB,IBHPCT
000034      11         .              ,IDSART(3),IQDS(3),IBDECT
000035      11          INTEGER DSABNB,DGABNB,GSABNB,ACSQB
000036      11    C
000037      11          COMMON/TARTRQ/ TTLART(10,2)
000038      11    C
000039      11    C  COUNT OF BLUE DIVS AND PACKED ARRAYS
000040      11    C  RED DIV UNPACKED DATA ARRAY
000041      11          COMMON/RVDATA/MINRV(2),DSABNR,DGABNR,GSABNR,ACSQR,ISTR,MANBNR(50),
000042      11         .              MSNR,IDRR,IGRR,LCAR,JARTPR,IDVTP,IRDS
000043      11          INTEGER DSABNR,DGABNR,GSABNR,ACSQR
000044      11    C  COUNT OF RED DIV AND PACKED ARRAY
000045      11          COMMON/BCORP/NBCORP,BCORPS(82)
000046      11    C  RED DECIMATED DIVISION FILE
000047      11    C
000048      11    C    NEXT 2 LINES MODIFIED TO ENHANCE R DECIMATION, MAY 78
000049      11          COMMON/DCM/DCMATD(50,3),DCMATC,ATHRR,DTHRR,MNT,MNSTAT,ISUPLY,MXTDC
000050      11         .,INARCY,ATHRR1
000051      11    C  DCMATC=COUNT OF RED DIVS CURRENTLY IN DCMATD FILE
000052      11    C  DCMATD(I,1)=INDEX OF WITHDRAWN DIVISION
000053      11    C  DCMATD(I,2)=INDEX OF PARENT ARMY
000054      11    C  DCMATD(I,3)=   0=RELEASE TO FRONT,GREATER THAN ZERO=ARMY CYCLES TO
000055      11    C                 YET EXPIRE BEFORE DIV IS RELEASABLE
000056      11    C  ATHRR=IF ANY RED DIV HAS A STATE LESS THAN THIS VALUE AND ITS CORPS
000057      11    C        MISSION IS ATTACK,IT WILL BE DECLARED AS DECIMATED AND WITH-
000058      11    C        -DRAWN IF TWO OR MORE ACTIVE DIVS REMAIN WITH CORPS.
000059      11    C  DTHRR=SAME AS ATHRR,BUT FOR CORPS DEFEND/DELAY.
000060      11    C  MNT=MIN TIME A RED DIVISION MUST REMAIN IN DECIMATION FILE (ARMY CYC)
000061      11    C  MNSTAT=MIN STATE A RED DIV MUST ACHIEVE BEFORE BEING RECOMMITTED.
000062      11    C  ISUPLY=   0=ALL RED DIVISION COMPETE EQUALLY FOR LOGISTIC SUPPORT.
000063      11    C            1=ONLY DECIMATED DIVISIONS GET MEN AND EQUIPMENT
000064      11          INTEGER DCMATD,DCMATC
000065      11    C
000066      11    C
000067      11          COMMON/CDSHFT/ FORATO,MAXFLK,ARMLIB,CORLIB,ARMLIR,CORLIR
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000182      11    C6610 FORMAT(' **INCL RESUPPLY, THEATER STOCKS!'/(20X,10F10.1))
000183      11      995  CONTINUE
000184      11    C
000185      11    C                                BOTH SIDES
000186      11    C
000187      11    C  IF BLUE SIDE DELIVER RESOURCES TO SUPPORT BDES OF CORPS AND DIVS
000188      11          IF (IS.EQ.1) CALL DDSUP
000189      11    C  PROCESS EACH UNIT
000190      11    C  DO WE RESUPPLY MEN AND EQUIPMENT TO ONLY RED DECIMATED DIVS
000191      11    C
000192      11          IF (IS.EQ.1.OR.ISUPLY.EQ.0) GO TO 19
000193      11          CALL DECSUP
000194      11    C     IF(DCMATC.GT.0) PRINT 6615, (DAVAIL(IL,2),IL=1,54)
000195      11    C6615 FORMAT(' **AFTER DECSUP THEATER STOCKS!'/(20X,10F10.1))
000196      11    19    N=NBDIV
000197      11          IF (IS.EQ.2) N=NRDIV
000198      11    C---------------- RESUPPLY NON DIV ARTY BN(S)
000199      11          CALL NDSUPY(IS)
000200      11          DO 5000 I=1,N
000201      11    C  GET DIV UNPACKED DATA
000202      11    C     NEXT LINE ADDED FOR DEACTIVATED DEC DIV, FEB 78
000203      11          IDEACT = 0
000204      11          IF (IS.EQ.2) GO TO 1220
000205      11          CALL PIKBV(I,2)
000206      11    C
000207      11    C     NEXT 3 LINES ADDED TO AVOID RESUPPLY OF WITHDRAWN BORDER DIV, 8/78
000208      11          IF(INFORT(I).GE. 0) GO TO 1218
000209      11          IDEACT = 1
000210      11          GO TO 1240
000211      11    C     PROCESS DIVISIONAL GS ARTY RESUPPLY
000212      11     1218 IND=DSABNB
000213      11          GO TO 1230
000214      11     1220 CALL PIKBV(I,2)
000215      11    C     NEXT 8 LINES ADDED FOR DEACTIVATED DEC DIV, FEB 78
000216      11          IF(DCMATC .LE. 0) GO TO 1238
000217      11          DO 1236 IL=1,DCMATC
000218      11          IF (DCMATD(IL,1) .NE. I) GO TO 1236
000219      11          IF (DCMATD(IL,2) .LT.50) GO TO 1236
000220      11          IDEACT = 1
000221      11          GO TO 1240
000222      11     1236 CONTINUE
000223      11     1238  IND=DGABNR
000224      11     1230 IF(IND.GT.0) CALL GIVART(IND,IS)
000225      11    C
000226      11    C
000227      11     1240 NS=3
000228      11          IF (IS.EQ.2) NS=1
000229      11          DO 915 NN=1,NS
000230      11          IDV=1
000231      11          IF(IS.EQ.2) GO TO 1234
000232      11                      IFLAG=IUS(I)
000233      11                       IF(IFLAG.LE.0) IFLAG=1
000234      11                       IF(IFLAG.GT.3) RETURN 0
000235      11                       IDV=IBDE(NN)
000236      11    C  IS THIS A GHOST BDE
000237      11    C  IF BDE BELONGS TO A GHOST DIVISION BYPASS PROCESSING
000238      11                       IF (NN.EQ.IGBDE) GO TO 915
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000410      11          IF (K.EQ.3.AND.J.GT.5) GO TO 70
000411      11           IF(PAVAIL(INDEX+J).LE.0.) GO TO 65
000412      11   C---------------- GIVE NEW/REPAIRED WEAPONS TO UNIT
000413      11   C                  DECREMENT PERSONNEL FOR CREWS TO NEW/REPAIRED WEAPONS
000414      11   C                  DO NOT WITHDRAW CREWS FOR ANTITANK AND MORTARS
000415      11          IZ=K+4*(IS-1)
000416      11          CRWSIZ=WPNBUF(1,J,IZ)
000417      11          IF (K.EQ.4) GO TO 62
000418      11           IZ=4*(IS-1)+K
000419      11          STAFIL(2,IS)=STAFIL(2,IS)-PAVAIL(INDEX+J)*CRWSIZ
000420      11       62 STAFIL(IN+JK,IS)=STAFIL(IN+JK,IS)+PAVAIL(INDEX+J)
000421      14   C     NEXT 9 LINES ADDED TO ACCOUNT BUNKERS BY MINISECTR, DEC 78
000422      14          IF(ISIDE.NE.1 .OR. K.NE.1) GO TO 65
000423      14          IF(J.NE.1 .AND. J.NE.6) GO TO 65
000424      14          MINLD = MINB(1,NN)
000425      14          MINHD = MINB(2,NN)
000426      14          PERMNI = PAVAIL(INDEX+J)/(MINHD +1 -MINLD)
000427      14          DO 422 MN=MINLD,MINHD
000428      14          IF(J .EQ. 1) TANK1(MN) = TANK1(MN) +PERMNI
000429      14          IF(J .EQ. 6) TANK1(MN) = TANK6(MN) +PERMNI
000430      14        422 CONTINUE
000431      11       65  CONTINUE
000432      11       70  CONTINUE
000433      11   C  COMPUTE STATE NUMERATOR (DENOMINATOR COMPUTED IN PREPROCESSOR)
000434      11        147   CALL STAMAT(IDV,1.,IS,4)
000435      11                IF(IS .EQ. 1)GO TO 151
000436      11                QUAR=0.0
000437      11                J=0
000438      11   C     NEXT 4 LINES CORRECTED (J/JK, 11/9), FEB 78
000439      11                DO 150 JK=1,9,2
000440      11                J=J+1
000441      11                RDHEL(J,IDV)=STAFIL(106+JK,2)
000442      11                QUAR=QUAR+STAFIL(106+JK,2)
000443      11       150     CONTINUE
000444      11                IF(QUAR .LE. 0.0)GO TO 148
000445      11                DO 149 J=1,3
000446      11                HRIFP(J,4,IDV)=UMATR(J,4,2)/QUAR
000447      11        149   CONTINUE
000448      11        148   CONTINUE
000449      11   C          IF(DCMATC.GT.0) PRINT 6617,I, (DAVAIL(IL,2),IL=1,54)
000450      11   C6617 FORMAT(' **AFTER DIV',I3,' RED THEATER STOCKS:'/(20X,10F10.1))
000451      11          151   CALL PKSTFL (IDV,IS)
000452      11   C
000453      11   C ---------- COMPUTE UNITS STATE
000454      11          ANUM=0.
000455      11          DO 3 KN=1,3
000456      11          DO 2 KJ=1,3
000457      11          ANUM=ANUM+UMATR(KJ,KN,IS)
000458      11       2  CONTINUE
000459      11       3  CONTINUE
000460      11          STATE=ANUM/STATD(IDV,IS)*100.0
000461      11   C      IF(IDEACT.EQ.1)PRINT 6620,IDV,(STAFIL(IL,IS),IL=1,139),STATE
000462      11   C6620 FORMAT(' **AFTER DDEND STATUS OF DIVISION',I5/(20X,10F10.1))
000463      11   C     NEXT 29 LINES ADDED FOR BORDER DIVS, OCT 78
000464      11          IF(IS.NE.1 .OR. INFORT(1).LE.0) GO TO 451
000465      11          IF(STATE .GE. 30.) GO TO 431
000466      11          INFORT(1) = 0 -INFORT(1)
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000467  11          GO TO 451
000468  11  C     CHECK FOR BOTH FLANKS OF A BORDER DIV EXPOSED!
000469  11    431 MINLD = MINBV(1)
000470  11        MINHD = MINBV(2)
000471  11  C     CHECK FOR SOUTH EDGE OF MAP!
000472  11        IF(MINHD.GE.NMIN1) GO TO 446
000473  11  C     IS SOUTH FLANK OF DIV EXPOSED?
000474  11        CALL CINDEX(MINHD,BTFEBA,INDEXB,LOVERB)
000475  11        CALL PIK(FEBA(INDEXB),LOVERB,BTFEBA,JFEB)
000476  11        LOVERB = LOVERB +BTFEBA
000477  11        CALL PIK(FEBA(INDEXB),LOVERB,BTFEBA,IFEB)
000478  11        IF(MINLD .GT. 1) GO TO 442
000479  11        IF(JFEB -IFEB .GE. MAXFLK) GO TO 448
000480  11        GO TO 451
000481  11    442 IF((JFEB-IFEB) .LT. 50) GO TO 451
000482  11  C     IS NORTH FLANK OF DIV EXPOSED?
000483  11    446 MINLD = MINLD -1
000484  11        CALL CINDEX(MINLD,BTFEBA,INDEXB,LOVERB)
000485  11        CALL PIK(FEBA(INDEXB),LOVERB,BTFEBA,IFEB)
000486  11        LOVERB = LOVERB +BTFEBA
000487  11        CALL PIK(FEBA(INDEXB),LOVERB,BTFEBA,JFEB)
000488  13        IF(MINHD .LT. NMIN1) GO TO 447
000489  11        IF(JFEB -IFEB .GE. MAXFLK) GO TO 448
000490  11        GO TO 451
000491  11    447 IF((JFEB-IFEB) .LT. 50) GO TO 451
000492  11    448 INFORT(I) = 0-INFORT(I)
000493  11    451 STATE=STATE+0.5
000494  11        IF (STATE.GT.100.0) STATE=100.0
000495  11        IF (STATE.LT.1.0) STATE=1.0
000496  11        IF (IS.EQ.1) ISTB(NN)=STATE
000497  11        IF (IS.EQ.2) ISTR=STATE
000498  11    915 CONTINUE
000499  11        IF (IS.EQ.1) CALL PAKBV(I,2)
000500  11        IF (IS.EQ.2) CALL PAKRV(I,2)
000501  11   5000 CONTINUE
000502  11   9000 CONTINUE
000503  11  C     NEXT LINE ADDED TO ENHANCE R DECIMATION, MAY 78
000504  11  C     IF(NACYC.LE.NARCY) ISUPLY = ISPIMP
000505  11        RETURN
000506  11        END

END ELT.

@MDG.P ****** DIVMOD/LOG ******

@ELT.L 7SPRINT1.DIVMOD/LOG
ELTOU7 S73R1A 02/27/79 14:20:13 (2,)
000001  00        COMPILER (XM = 1)
000002  00        SUBROUTINE DIVMOD                @31JUL73DOC
000003  00          INCLUDE PROC
000004  00        INTEGER BTFEBA
000005  00        DIMENSION IDIVSN(3),BSTATE(3)
000006  00        INTEGER BSTATE
000007  00         INCLUDE BTBDV
000008  00         INCLUDE BTBDE
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000009      00            COMMON/IOUNIT/I01,I02,I06,I09
000010      00          COMMON /ROW1/WPIFP(2,12,2),WPIFPI(2,2),WIDE,ISUPSW
000011      00          COMMON/ROBNSN/ ALLIFP(2),ATIFPA(2,2),ATIFPM(2,2)
000012      00    C       ALLIFP(ISIDE)  =  TOTAL DS IFP FOR ISIDE PRIOR TO SUPPRESSION
000013      00    C       ATIFPA(1,SIDE) =  TOTAL ATIFP FROM LT ARMOR BEFORE SUPPRESSION
000014      00    C             (2,SIDE) =  TOTAL ATIFP FROM LT ARMOR AFTER  SUPPRESSION
000015      00    C       ATIFPM(1,SIDE) =  TOTAL ATIFP FROM AT/MORTR BEFORE SUPPRESSION
000016      00    C             (2,SIDE) =  TOTAL ATIFP FROM AT/MORTR AFTER  SUPPRESSION
000017      00    C
000018      00    C
000019      00    C---------DIVISION CYCLE CONTROL PROGRAM
000020      00    C
000021      00          COMMON/BARM/NBARMY,BARMY(14)              @ 23 OCT 73 ALLISON
000022      00          COMMON/RARM/NRARMY,RARMY(27)              @ 23 OCT 73 ALLISON
000023      00          COMMON/BCORP/NBCORP,BCORPS(82)            @ 23 OCT 73 ALLISON
000024      00          COMMON/RCORP/NRCORP,RCORPS(164)           @ 23 OCT 73 ALLISON
000025      00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC,IWARTM,IDPT,IDPC,ICPA,IAPT
000026      00          COMMON/MODEL/IDMOD
000027      00          COMMON/PACK5/ LSSFBA
000028      00          COMMON /PACK5A/ KSIDE
000029      00          EXTERNAL COMTBV,COMTRV,ESTMBV,ESTMRV
000030      00          COMMON/SWITCH/KPRSW
000031      00    C          COMMON/FACE/ CONSUP(5)                 @CAA NOV 76
000032      00               COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000033      00    C     NEXT LINE ADDED TO TO REPORT BUNKER LOSSES, OCT 78
000034      00             COMMON/BIGLOS/OSSES(45,4)
000035      00          DIMENSION MIN1(500,3)
000036      00    C           ************ WEAK ON-LINE DIVISION DATA ************
000037      00    C
000038      00    C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000039      00          COMMON/IWKOVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000040      00         *              RPOOL(9,3,6),RPOOLC(6)
000041      00    C     INTEGER RPOOLC       @CANCELLED (NOT NEEDED) AUG 78
000042      00            INTEGER RPOOL
000043      00          REAL MARGIN
000044      00    C
000045      00    C  IDEFSW = DEFENSE SWITCH
000046      00    C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000047      00    C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000048      00    C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000049      00    C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000050      00    C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000051      00    C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000052      00    C
000053      00    C  LISTPL(4,6)
000054      00    C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000055      00    C           4 = DIV INDEXES OF WEAK DIVS
000056      00    C           6 = PARENT ARMY HQ
000057      00    C  LISTLC(6)
000058      00    C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000059      00    C  RPOOL(4,3,6)
000060      00    C           LIST OF REPLACEMENT DIVS
000061      00    C           4 = DIV INDEXES
000062      00    C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000063      00    C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000064      00    C           6 = PARENT ARMY HQ
000065      00    C  RPOOLC(6)
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000066  00  C            COUNT OF ARMY RESERVE DIVS
000067  00        COMMON/REALL/NALLOC
000068  00  C  NALLOC=SWITCH(INDEX OF PARENT CORPS HDQ) NON-ZERO WHEN A RESERVE
000069  00  C  DIVISION IS COMMITTED TO THE FRONT DURING A DIVISION CYCLE...
000070  00        EQUIVALENCE (MINI,MINID)
000071  00  C     CRLOS(45,4,2)   1-45.....  1 PERSONNEL, 2 POL, 3 AMMO, 4 OTHER,
000072  00  C        5-16 TANKS, 17-28 LIGHT ARMOR, 29-33 HELICOPTERS,
000073  00  C        34-45 ANTITANKS AND MORTARS
000074  00  C                  1-4.....  1 RESTORABLE COMBAT LOSS, 2 PERMANENT
000075  00  C        COMBAT LOSS, 3 RESTORABLE NONCOMBAT LOSS, 4 PERMANENT NONCOMBAT
000076  00  C        LOSS        1-2.....  1 BLUE FORCES, 2 RED FORCES.
000077  00        DIMENSION ALOSS(360),XLOS(60)
000078  00        EQUIVALENCE (ALOSS,CRLOS)
000079  00  C     EXPAND CBTLOS,BLOSS TO 436*8     @PEARCE,10JUN75
000080  00        EQUIVALENCE(BLOSS,CBTLOS),(XLOS,CRLOX)
000081  00        DIMENSION BLOSS(3480)            @PEARCE,10JUN75
000082  00  C
000083  00  C----------SET MODEL ID
000084  00        IDMOD=5
000085  00        IF (NALLOC.EQ.0) GO TO 500
000086  00        IF (NALLOC.GT.0) GO TO 1000
000087  00        GO TO 2000
000088  00  C
000089  00  C----------INCREMENT DIVISION CYCLE COUNTER
000090  00  500   NDCYC=NDCYC+1
000091  00  C
000092  02        IF(IDEFSW.EQ.0) GO TO 1860
000093  02  C     NEXT 2 LINES ADDED TO REDUCE DIAGNOSTIC PRINT, JAN 79
000094  02        IDV = MOD(NDCYC,IDPC*ICPA)
000095  02        IF(IDV.NE.1 .AND. IDV.NE.0) GO TO 1860
000096  00         WRITE(17,1836)
000097  00        DO 1850 NA=1,NBARMY
000098  00  C     NEXT LINE MODIFIED FOR 9 ARMY RESERVE DIVS, SEP 78
000099  00            DO 1840 ND=1,9
000100  00              IDIVSN(1)=RPOOL(ND,1,NA)
000101  00              IDIVSN(2)=RPOOL(ND,2,NA)
000102  00              IDIVSN(3)=LISTPL(ND,NA)
000103  00        IDVTOT=IDIVSN(1)+IDIVSN(2)+IDIVSN(3)
000104  00              IF(IDVTOT.LE.0) GO TO 1840
000105  00        DO 1833 JDV=1,3
000106  00        IDV=IDIVSN(JDV)
000107  00         COUNT=0.0
000108  00        SUMSTA=0.0
000109  00        BSTATE(JDV)=0.
000110  00        IF(IDV.LE.0) GO TO 1833
000111  00        CALL CINDEX(IDV,BTBVTE,INDEX,LOVER)
000112  00        CALL PIK(BDIV(INDEX),LOVER+BSBVHB,BLBVHB,IGBDE)
000113  00        LOVER=LOVER+BTBVEE
000114  00        DO 183 IB=1,3
000115  00        IF (IB.EQ.IGBDE) GO TO 183
000116  00        COUNT=COUNT+1.0
000117  00        CALL PIK(BDIV(INDEX),LOVER+BSBDST,BLBDST,ISTB)
000118  00        SUMSTA=SUMSTA+FLOAT(ISTB)
000119  00  C     NEXT LINE CORRECTED, OCT 78
000120  00    183 LOVER = LOVER +BTBDEE
000121  00        BSTATE(JDV)=SUMSTA/COUNT
000122  00   1833 CONTINUE
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000123  00              IF(IND.GT.IPOLMX) GO TO 1835
000124  00              IF(IDIVSN(1).EQ.0) GO TO 1835
000125  00          WRITE(17,1838) NA,IDIVSN(1),BSTATE(1),IDIVSN(2),BSTATE(2),
000126  00         .    RPOOL(ND,3,NA),IDIVSN(3),BSTATE(3)
000127  00              GO TO 1840
000128  00     1835      IF(IDIVSN(3).EQ.0) GO TO 1840
000129  00          WRITE(17,1839) NA,IDIVSN(3),BSTATE(3)
000130  00     1840 CONTINUE
000131  00     1850 CONTINUE
000132  00     1836    FORMAT(//,1H ,5X,4HARMY,5X,11HRESERVE DIV,3X,5HSTATE,5X,
000133  00         .       12HFLAGGED WOLD,3X,5HSTATE,3X,11HCYCLE DELAY,5X,
000134  00         .       14HCANDIDATE WOLD,3X,5HSTATE,/,
000135  00         .       1H ,5X,4(1H-),5X,11(1H-),3X,5(1H-),5X,
000136  00         .       12(1H-),3X,5(1H-),3X,11(1H-),5X,
000137  00         .       14(1H-),3X,5(1H-))
000138  00     1838    FORMAT(1H ,5X,13,11X,12,7X,15,10X,12,8X,15,8X,12,15X,12,9X,15)
000139  00     1839    FORMAT(1H ,5X,13,75X,12,9X,15)
000140  00     1860 CONTINUE
000141  00     C         REPLACE WEAK ON-LINE DIV(S)                          BWK 315
000142  01     C    NEXT 13 LINES MODIFIED TO REPORT BUNKER LOSSES, OCT 78
000143  01     C---------ZERO CRLOS ARRAY THROUGH ALOSS
000144  01           DO 4000 I=1,360
000145  01           ALOSS(I) = 0.0
000146  01      4000 CONTINUE
000147  00           DO 3300 I=1,4
000148  00           DO 3111 K=1,45
000149  00            OSSES(K,I)=0.
000150  00     3111  CONTINUE
000151  00      3300 CONTINUE
000152  00           IF(IDEFSW.EQ.0) GO TO 1000
000153  02     C      WRITE(17,33)
000154  02     C  33 FORMAT(10X,'** DIVMOD CALLING KIDNAP **')
000155  00            CALL KIDNAP
000156  00     C                                                             BWK 317
000157  00     C     CALL FEBSTR       @CANCELLED JULY 78
000158  00     C---------CHECK CORPS RESERVE TAGS BY SIDE
000159  00      1000 CALL CRRT(NBCORP,BCORPS,COMTBV)
000160  00           IF (NALLOC.NE.0) RETURN
000161  00     2000   CALL CRRT(NRCORP,RCORPS,COMTRV)
000162  00           IF (NALLOC.NE.0) RETURN
000163  00     C
000164  00     C---------OUTCOME ESTIMATES BY SIDE
000165  00           KPRSW=0
000166  00           KSIDE=2
000167  00           CALL ESTIMD (NRARMY,RARMY,NRCORP,RCORPS,ESTMRV,2)
000168  00           KSIDE=1
000169  00           CALL ESTIMD (NBARMY,BARMY,NBCORP,BCORPS,ESTMBV,1)
000170  00     C    NEXT LINE ADDED TO ELIMINATE FLANK WITHIN SUBSECTOR, MAR 78
000171  00           CALL FEBSTR
000172  00     C
000173  00           CALL PRTUNT(3)
000174  00     C---------ASSESS BDE LEVEL OUTCOMES
000175  00           KPRSW=1
000176  00           DO 1010 I=1,3480                  WPEARCE,10JUN75
000177  00           BLOSS(I) = 0.0
000178  00      1010 CONTINUE
000179  00     C --------------- ZERO OUT PARTITION LOSSES
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@ELT,L 75PRINT1,DIVRPT/REDMOV
ELT007 S73RIA 02/27/79 14120117 (0,)
000001    00          COMPILER (XM = 4)
000002    00          SUBROUTINE DIVRPT
000003    00            INCLUDE PROC
000004    00          COMMON/WARF   / WARFA(41)
000005    00          DIMENSION P(41),PA(41)
000006    00          COMMON/SWATCH/ IWARF,IUSSW,NSUPDV
000007    00          COMMON/ENDWAR/EOWSW
000008    00          COMMON/WGAINS/ XGAINS(64,2)                 @CAA JAN 76
000009    00    C     NEXT 6 LINES ADDED FOR BLUE WEAK DIV LOGIC, MAY 78
000010    00    C           ********** WEAK ON-LINE DIVISION DATA **********
000011    00    C
000012    00    C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000013    00          COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000014    00         *              RPOOL(9,3,6),RPOOLC(6)
000015    00          INTEGER RPOOLC
000016    00            INTEGER RPOOL
000017    00    C     NEXT LINE ADDED FOR RED ARMY RESERVE POOL, DEC 78
000018    00          COMMON/IREPL/IPOOLR(9,3,11),IPOOLC(11)
000019    00          COMMON/BRKART/ ARTBRK(8,2)
000020    00          INTEGER EOWSW
000021    00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC,IWARTM,IDPT,IDPC,ICPA,IAPT
000022    00              COMMON/ARRAYB/XL(6,6,2),RATIO(6),HELO(4),PERLOS(12,3)
000023    00              DIMENSION XLZERO(18)
000024    00              EQUIVALENCE (XLZERO(1),XL(1,1,1))
000025    00    C
000026    00    C----------ROUTINE TO WRITE DIVISION CYCLE DATA TO OUTPUT TAPE
000027    00    C
000028    00          COMMON/BCORP/NBCORP,BCORPS(85)            @ 23 OCT 73 ALLISON
000029    00    C  STATUS FILE PACKED
000030    00          COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),
000031    00         *               NDIVGS(2),NASGRT(2)
000032    00    C
000033    00    C     CRLOS(45,4,2)   1-45.....  1 PERSONNEL, 2 POL, 3 AMMO, 4 OTHER,
000034    00    C         5-16 TANKS, 17-28 LIGHT ARMOR, 29-33 HELICOPTERS,
000035    00    C         34-45 ANTITANKS AND MORTARS
000036    00    C                     1-4.....  1 RESTORABLE COMBAT LOSS, 2 PERMANENT
000037    00    C         COMBAT LOSS, 3 RESTORABLE NONCOMBAT LOSS, 4 PERMANENT NONCOMBAT
000038    00    C         LOSS        1-2.....  1 BLUE FORCES, 2 RED FORCES,
000039    00    C     EXPAND CBTLOS    TO    435*8      @PEARCE,10JUN75
000040    00          INTEGER BTFEBA
000041    00          COMMON/IOUNIT/IO1,IO2,IO6,IO9
000042    00          COMMON/RCORP/NRCORP,RCORPS(169)           @ 23 OCT 73 ALLISON
000043    00          COMMON/REDCMN/ GAINS(45),JSUPLY
000044    00              COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000045    00          COMMON/USCC/ IUSC(30)
000046    00          COMMON/USCPCT/ FRACOR(3)
000047    00    C     COMMON/TFACE/ TCONSP(5)                     @CAA NOV 75
000048    00    C
000049    00    C----------WRITE OUTPUT LABEL
000050    00          CALL LABEL (15)
000051    00    C
000052    00    C----------WRITE NON-UNIT DATA ARRAYS
000053    00          WRITE (IO2) FEBA
000054    00          WRITE (IO2) KNTNFR,NFR
000055    00    C
```

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000056   00  C---------WRITE UNIT DATA ARRAYS
000057   00        WRITE (102) BCORPS,BDIV
000058   00        WRITE (102) RCORPS,RDIV
000059   00        WRITE(102) ISFILE,BTSFLE,BTLGSF
000060   00  C---------CUM CORPS LOSSES FOR CORPS CYCLE
000061   00        WRITE(102) CRLOS
000062   00  C ------------------- PROVIDE PARTITION LOSSES TO POSTPROCESSOR
000063   00              WRITE(102) CRLOX
000064   00              WRITE (102) CBTLOS
000065   00        WRITE(102) XGAINS                                  @CAA JAN 76 GOLUB
000066   00  C ------------------- PROVIDE PARTITION GAINS  TO POSTPROCESSOR
000067   00              WRITE(102) XGAINX
000068   00  C ------------------PROVIDE GS FLAGS AND NONDIV ARTY PERCENTAGES TO POST
000069   00              WRITE(102) IUSC,FRACOR
000070   00  C           CUM DIV CYCLE GAINS TO DECIMATED UNITS
000071   00  C
000072   00  C     NEXT LINE MODIFIED FOR 9 ARMY RESERVE DIVS, SEP 78
000073   00         WRITE(102) GAINS,JSUPLY,EOWSW,RPOOLC,((RPOOL(K,I,J),K=1,9),J=1,6)
000074   00        *, IPOOLC,(((POOLR(K,I,J),K=1,9),J=1,11)
000075   00  C     PREVIOUS LINE ADDED FOR RED ARMY RESERVE POOL, DEC 78
000076   00  C
000077   00  C
000078   00          WRITE(11) ARTSTA,ALNGS,NASGRT,NDIVGS,ARTBRK
000079   00        DO 222 I=1,8
000080   00        ARTBRK(I,1)=0.
000081   00        ARTBRK(I,2)=0.
000082   00    222 CONTINUE
000083   00  C
000084   00  C                 ••• W A R F •••
000085   00  C
000086   00        IF(IWARF.LE.0) GO TO 56
000087   00        N=4
000088   00        K=0
000089   00             DO 20 J=1,4
000090   00             PA(J)=WARFA(J)
000091   00             P(J)=P(J) + CRLOS(N*J,2,1)
000092   00       20    WARFA(J)=0.
000093   00            WRITE(14,40) (PA(K),P(K),K=1,4)
000094   00       40   FORMAT(6(8F10.4,/),8F10.4,/,2F10.4,/,2(8F10.4,/),8F10.4)
000095   00             DO 50 K=1,4
000096   00             P(K)=0.
000097   00       50    PA(K)=0.
000098   00       56    CONTINUE
000099   00  C
000100   00             IF(MOD(NDCYC,2) .NE. 0 .AND. EOWSW .EQ. 0)RETURN
000101   00             WRITE(102)NDCYC,NCCYC,XL,HELO,PERLOS
000102   00             DO 10 I=1,118
000103   00       10    XLZERO(I)=0.0
000104   00  C
000105   00  C---------EXIT
000106   00        RETURN
000107   00        END

END ELT.

@MDG,P  •••••  ESTIMA/HL  ••••••
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@ELT,L 7SPRINT1,ESTIMA/HL
ELT007 S73R1A 02/27/79 14:20:20 (8,)
000001  04        COMPILER (XM = 1)
000002  04        SUBROUTINE ESTIMA (NARMY,ARMY,CORPS,ISIDE)
000003  04          INCLUDE PROC
000004  04          COMMON/IOUNIT/IO1,IO2,IO6,IO9
000005  04        DIMENSION ARMY(1),CORPS(1)
000006  04   C
000007  04   C---------ARMY ESTIMATION CONTROL ROUTINE
000008  04   C
000009  04        COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),
000010  04       *              NDIVGS(2),NASGRT(2)
000011  04   C
000012  04        COMMON/ARTFP/AVGSAR(4,2),ARTYFP(15,4,2),SARTB(8),SARTR(8),FRART(2)
000013  04        INTEGER SARTB,SARTR
000014  04   C  AVGSAR=AVERAGE ME IFP (SUM AT ALA AP) FOR NON DIV GS ARTY (AVG BN)
000015  04   C   ARTYFP=ME IFP FOR EACH ARTY BN TYPE FOR AT ALA AP BY SIDE
000016  04        COMMON/AIRENV/KAIRSW(2)
000017  04        COMMON/ATHRSH/AATB(2),ADTB(2),ALTB,AATR(2),ADTR(2),ALTR
000018  04        COMMON/ADELAY/AUNTDB(2),AUNTDR(2),ARESDB(2),ARESDR(2)
000019  04        INTEGER AUNTDB,AUNTDR,ARESDB,ARESDR
000020  04        COMMON/ARMDAT/JARMY,MINIAR(2),ARTYAR,ACAR,IARRT,NCORP,IRCORP,ISPX,
000021  04       *              KPOSN2,MSNAR,ICORP(5),MINICX(2,5),CMIFP(3,5),
000022  04       *              CAIFP(5),NACSQ2(5),NARTY2(5)
000023  04   C
000024  04        COMMON/SMALST/ SMIFP
000025  04   C    SMIFP = RATIO WITHOUT WEAKEST OR RESERVE CORPS IN ARMY   @AUG 78
000026  04   C    NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000027  04        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000028  04       *              RPOOL(9,3,6),RPOOLC(6)
000029  04   C    INTEGER RPOOLC,RPOOL     @CANCELLED (NOT NEEDED) AUG 78
000030  04   C    NEXT 3 LINES ADDED TO PREVENT SHIFT OF BORDER DIV, OCT 78
000031  04        COMMON/BORDIV/INFORT(70)
000032  04        INCLUDE BTCORP
000033  04        DIMENSION JCBORD(5)
000034  08        COMMON/PRTSW/IPRINT(2),IPP
000035  04        INTEGER ACAR
000036  04        COMMON/BNIFPS/BBNIFP(50),BHLIFP(5),BAIFP,RBNIFP(50),RAIFP
000037  04        COMMON/DECBUF/INDECA,IDECA(5,18)
000038  04        DIMENSION DECA(5,18)
000039  04        EQUIVALENCE (IDECA,DECA)
000040  04        COMMON/MINMSD/MMSDVB,MMSDVR,NDVCR(5)
000041  04        COMMON/AENIFP/ENIFP(2),FIFP
000042  04        DIMENSION ATHR(5,2),ATHRSD(5),CRIFP(5)
000043  04        EQUIVALENCE (ATHR,AATB),(ATHRSD(1),AAT1),(ATHRSD(2),AAT2)
000044  04        EQUIVALENCE (ATHRSD(3),ADT1),(ATHRSD(4),ADT2),(ATHRSD(5),ALT)
000045  04        COMMON/REA/KELLOG
000046  04   C  KELLOG=SWITCH (INDEX OF PARENT ARMY HDQ.) NON-ZERO WHEN A RESERVE
000047  04   C  CORPS IS COMMITTED TO THE FRONT DURING A CORPS CYCLE...
000048  04   C A NEGATIVE VALUE=INDEX OF RED ARMY HDQ
000049  04   C  APOSITIVE VALUE=INDEX OF BLUE ARMY HDQ.
000050  04   C
000051  04   C---------HOUSEKEEPING FOR ROUTINE
000052  08        IF(IPP.EQ.1)WRITE (106,9000) ISIDE
000053  04    9000 FORMAT (6X,'BEGIN ESTIMATION',5X,'SIDE',I2)
000054  04        JAIRSW=KAIRSW(ISIDE)+1
000055  04        IBASE=6*(ISIDE-1)
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000056  04          DO 3000 I=1,5
000057  04            ATHRSD(I)=ATHR(I,ISIDE)
000058  04   3000 CONTINUE
000059  04          IF (ISIDE.EQ.2) GO TO 2000
000060  04    C
000061  04    C---------BLUE INITIALIZATION
000062  04          AIFP=AVGSAR(4,1)
000063  04          IDELU=AUNTDB(JA,RSW)+1
000064  04          MMSDIV=MMSDVB
000065  04          IST=KELLOG
000066  04          GO TO 2100
000067  04    C
000068  04    C---------RED INITIALIZATION
000069  04   2000 AIFP=AVGSAR(4,2)
000070  04          IDELU=AUNTDR(JA,RSW)+1
000071  04          MMSDIV=MMSDVR
000072  04          IST=-KELLOG
000073  04    C
000074  04    C---------PROCESS BY ARMY
000075  04   2100 DO 3100 JARMY=1,NARMY
000076  04          IF (KELLOG.NE.0.AND.IST.NE.JARMY) GO TO 3100
000077  08          IF(IPP.EQ.1)WRITE (106,9001) JARMY
000078  04   9001 FORMAT (1X,'ESTIMATING FOR ARMY',I3)
000079  04    C
000080  04    C---------RETRIEVE FRIENDLY AND ENEMY DATA
000081  04            INDECA=IBASE+JARMY
000082  04            IDECA(5,INDECA)=0
000083  04            CALL PIKAR (ARMY,CORPS,ISIDE)
000084  04    C     NEXT 20 LINES ADDED TO PREVENT SHIFT OF A BORDER DIV, OCT 78
000085  04          JABORD = 0
000086  04          IF(ISIDE .EQ. 2) GO TO 88
000087  04          DO 84 I=1,NCORP
000088  04          JCBORD(I) = 0
000089  04          IF(I .EQ. IRCORP) GO TO 84
000090  04          CALL CINDEX(ICORP(I),BTCREE,INDEXC,LOVERC)
000091  04          CALL PIK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000092  04          LOVERC = LOVERC +BSCRD
000093  06          DO 83 J=1,NDIV
000094  04          CALL PIK(CORPS(INDEXC),LOVERC,BLCRD,MDIV)
000095  04          LOVERC = LOVERC +BLCRD
000096  04          IF(INFORT(MDIV).EQ. 0) GO TO 83
000097  04          JCBORD(I) = 1
000098  04          JABORD = 1
000099  04          GO TO 84
000100  04       83 CONTINUE
000101  04       84 CONTINUE
000102  05       88 CALL RTVFPA (MINIAR(1),MINIAR(2),ISIDE)
000103  04    C
000104  04    C---------TRY ARMY ATTACK
000105  04          IF(KELLOG .EQ. 0)MSNAR=2
000106  04    C
000107  04    C       IF DEFENSE SWITCH ON, MAX ARMY MISSION IS DEFENSE
000108  04    C     NEXT LINE CORRECTED FOR RED ATTACK, JULY 78
000109  04          IF(IDEFSW.GT.0 .AND.ISIDE.EQ.1) MSNAR=1
000110  04            CALL CALAFP (ARIFP,0,ISIDE)
000111  04            DECA(4,INDECA)=ARIFP
000112  08          IF(IPP.EQ.1)WRITE (106,9100) MSNAR,FIFP,ENIFP(2),ARIFP
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000113      08    9100 FORMAT (1HO,15X,'MISSION',I2,5X,'FR IFP',F9.3,5X,'EN IFP',F9.3,5X,
000114      08       *        'FORCE RATIO',F8.3)
000115      09   C   IF THIS IS A REENTRY TO REALLOCATE ARTY AND CAS DO NOT CHG MISSION
000116      09       IF(KELLOG .NE. 0)GO TO 8000
000117      07   C    NEXT LINE CORRECTED FOR RED SIDE, OCT 78
000118      07        IF((DEFSW.GT.0 .AND. ISIDE.EQ.1) GO TO 595
000119      09          IF (ARIFP.GT.AAT1) GO TO 6000
000120      09   C
000121      09   C----------ARMY CANNOT ATTACK - TRY DEFENSE
000122      09           MSNAR=1
000123      09           CALL CALAFP (ARIFP,0,ISIDE)
000124      09           DECA(4,INDECA)=ARIFP
000125      08         IF(IPP.EQ.1)WRITE (106,9100) MSNAR,FIFP,ENIFP(1),ARIFP
000126      09    595    IF (ARIFP.GT.ADT1) GO TO 6100
000127      09   C
000128      09   C----------ARMY CANNOT DEFEND - TRY DELAY
000129      09           MSNAR=0
000130      09           CALL CALAFP (ARIFP,0,ISIDE)
000131      09           DECA(4,INDECA)=ARIFP
000132      08         IF(IPP.EQ.1)WRITE (106,9100) MSNAR,FIFP,ENIFP(1),ARIFP
000133      09           IF (IRCORP.NE.0) GO TO 6200
000134      09           IF (ARIFP.GT.ALT) GO TO 7000
000135      09           GO TO 8000
000136      09   C
000137      09   C----------ARMY CAN ATTACK
000138      09    6000   IF (IRCORP.EQ.0) GO TO 6050
000139      09         IF(SMIFP .GT.AAT2) GO TO 6010
000140      09   C     IF(ARIFP .GT.AAT2) GO TO 6010   *REPLACED BY ABOVE, AUG 78
000141      09    6002   IDECA(5,INDECA)=2
000142      09           IF (IARRT.NE.0) GO TO 8000
000143      09           IARRT=IDELU
000144      09           KPOSN2=-1
000145      09           IDECA(5,INDECA)=1
000146      09           GO TO 8000
000147      09    6010   IF (IARRT.EQ.0) GO TO 8000
000148      09           IARRT=0
000149      09           IDECA(5,INDECA)=3
000150      09           GO TO 8000
000151      09    6050    IF(SMIFP .LE.AAT2) GO TO 8000
000152      09   C6050    IF(ARIFP.LE.AAT2) GO TO 8000  *REPLACED BY ABOVE, AUG 78
000153      09           GO TO 7000
000154      09   C
000155      09   C----------ARMY CAN DEFEND
000156      09    6100   IF (IRCORP.EQ.0) GO TO 6150
000157      09         IF(SMIFP .GT.ADT2) GO TO 6010
000158      09   C     IF(ARIFP .GT.ADT2) GO TO 6010  *REPLACED BY ABOVE, AUG 78
000159      09           GO TO 6002
000160      09    6150   IF(SMIFP .LE.ADT2) GO TO 8000
000161      09   C6150   IF(ARIFP.LE.ADT2) GO TO 8000  *REPLACED BY ABOVE, AUG 78
000162      09           GO TO 7000
000163      09   C
000164      09   C----------ARMY WILL DELAY
000165      09    6200   IF (ARIFP.GT.ALT) GO TO 6010
000166      09           GO TO 6002
000167      09   C
000168      09   C----------RECONSTITUTE RESERVE CORPS
000169      09    7000                IF(NCORP.LT.2) GO TO 8000
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000170  04  C    NEXT LINE ADDED TO PREVENT SHIFT OF A BORDER DIV, OCT 78
000171  04        IF(JABORD .EQ. 1) GO TO 8000
000172  04                          CALL RECONC (ISIDE)
000173  04          IDECA(5,INDECA)=4
000174  04  C
000175  04  C---------CALCULATE CORPS IFP RATIOS
000176  04  8000    CONTINUE
000177  08        IF(IPP.EQ.1)WRITE (106,9200) MSNAR
000178  08   9200 FORMAT (1HO,20X,'SUBORDINATE CORPS DATA',5X,'MISSION',I2)
000179  04        DO 3200 K=1,NCORP
000180  04            CALL CALAFP (CRIFP(K),K,ISIDE)
000181  08        IF(IPP.EQ.1)WRITE (106,9201) K,FIFP,ENIFP,CRIFP(K)
000182  08   9201 FORMAT (1H ,25X,'CORPS',I3,5X,'FR IFP',F9.3,5X,'EN IFPS',2F9.3,5X,
000183  08       .         'A/D RATIO',F8.3)
000184  04   3200   CONTINUE
000185  04  C   IF THIS IS A REENTRY TO REALLOCATE ARTY AND CAS DO NOT CHG MISSION
000186  04        IF(KELLOG .NE. 0)GO TO 8100
000187  04  C
000188  04  C---------DECIDE WHOM RESERVE UNIT WILL SUPPORT
000189  04          IF (KPOSN2.GE.0) GO TO 8100
000190  04          CRFPMX=0.
000191  04          ISPX=0
000192  04          DO 3300 K=1,NCORP
000193  04            IF (K.EQ.IRCORP) GO TO 3300
000194  04            KTOT=NDVCR(K)+NDVCR(IRCORP)
000195  04            IF ((MMSDIV*KTOT).GT.(MINICX(2,K)-MINICX(1,K)+1)) GO TO 3300
000196  04            IF (CRFPMX.GE.CRIFP(K)) GO TO 3300
000197  04  C     NEXT LINE ADDED TO PREVENT SHIFT OF A BORDER DIV, OCT 78
000198  04          IF(JCBORD(K) .EQ. 1) GO TO 3300
000199  04              ISPX=K
000200  04              CRFPMX=CRIFP(K)
000201  04   3300   CONTINUE
000202  04          KPOSN2=0
000203  04          IF (ISPX.NE.0) GO TO 2200
000204  04          IARRT=0
000205  04          GO TO 8100
000206  04   2200   CIFPA=CMIFP(MSNAR+1,ISPX)+CAIFP(ISPX)
000207  04          CIFPR=CMIFP(MSNAR+1,IRCORP)+CAIFP(IRCORP)
000208  04          IF ((MINICX(1,ISPX).EQ.MINIAR(1)).AND.(CIFPA.LT.CIFPR))
000209  04       .     KPOSN2=1
000210  04          IF ((MINICX(2,ISPX).EQ.MINIAR(2)).AND.(CIFPA.GT.CIFPR))
000211  04       .     KPOSN2=1
000212  04  C
000213  04  C---------ALLOCATE ARTY AND AIR SUPPORT TO CORPS
000214  04   8100 IF(MSNAR.EQ.2) GO TO 8102
000215  04  C     NEXT LINE ADDED TO PREVENT SHIFT OF A BORDER DIV, OCT 78
000216  04        IF(JABORD .EQ. 1) GO TO 8102
000217  04  C IF ARMY DOES NOT HAVE A COMMITTMENT PLAN FOR RESERVE CORPS,
000218  04  C PERMIT ARMY TO SHIFT CORPS BOUNDARIES AS MAY BE REQUIRED TO MEET
000219  04  C THE ENEMY THREAT AS VIEWED BY ARMY HDQ.........
000220  04            IF(IARRT.GT.0.AND.IRCORP.GT.0) GO TO 8102
000221  04    198 CALL CSHIFT(ISIDE)
000222  04        DO 8101 I=1,NCORP
000223  04        CALL CALAFP(CRIFP(I),I,ISIDE)
000224  08        IF(IPP.EQ.1)WRITE(106,9201) I,FIFP,ENIFP,CRIFP(I)
000225  04    8101 CONTINUE
000226  04    8102  CONTINUE
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000227        04          IARTY=ARTYAR*10.0
000228        04           CALL ALLOC(IARTY,CRIFP,NARTY2,NCORP)
000229        04           CALL ALLOC (ACAR,CRIFP,NACSQ2,NCORP)
000230        04    C
000231        04    C----------REPACK FRIENDLY DATA
000232        04             CALL PAKAR (ARMY,CORPS,ISIDE)
000233        04          IF (KELLOG.NE.0) RETURN
000234        04     3100 CONTINUE
000235        04    C
000236        04    C----------EXIT
000237        04          RETURN
000238        04          END

END ELT,


@MDG,P  ****** ESTIMC/CORDER  ******


@ELT,L 75PRINTI.ESTIMC/CORDER
ELT007 S7JRIA 02/27/79 14:20:28 (5,)
000001        01          COMPILER (XM = 1)
000002        01          SUBROUTINE ESTIMC (NARMY,ARMY,ISIDE)
000003        01          COMMON/IOUNIT/IO1,IO2,IO6,IO9
000004        01          DIMENSION ARMY(1)
000005        01    C
000006        01    C----------CORPS CYCLE ESTIMATION ROUTINE
000007        01    C
000008        01          COMMON/AIRENV/KAIRSW(2)
000009        01          COMMON/BNIFPS/BBNIFP(50),BHLIFP(5),BAIFP,RBNIFP(50),RAIFP
000010        01          COMMON/CENIFP/ENIFP2(2),FIFP7
000011        01          COMMON/CTHRSH/CATB(2),CDTB(2),CLTB,CATR(2),CDTR(2),CLTR
000012        01           INCLUDE BTARMY
000013        01          COMMON/CRDATA/ICORPS,MSNCR,MINICR(2),ARTYCR,ACCR,ICRRT,NDIV,IRDIV,
000014        01         *              ISPT,KPOSN,IDIV(5),MINIDV(2,5),DMIFP(3,5),DAIFP(5),
000015        01         *              NACSQ(5),NARTY(5),NHELPT(5)
000016        01          INTEGER ACCR
000017        01          COMMON/CDELAY/UNTCDB(2),UNTCDR(2),CRESDB(2),CRESDR(2)
000018        01          COMMON/DECBUF/INDECC,IDECC(5,90)
000019        01          COMMON/DVSFLG/ IDVFL
000020        01          DATA IDVFL/0/
000021        01          DIMENSION DECC(5,90)
000022        01          EQUIVALENCE (IDECC,DECC)
000023        01          COMMON/MINMSD/MMSDVB,MMSDVR
000024        01          INTEGER UNTCDB,UNTCDR,CRESDB,CRESDR
000025        01          DIMENSION CTS(5,2),CTA(5),DRIFP(5)
000026        01          EQUIVALENCE (CTS,CATB),(CTA(1),CAT1),(CTA(2),CAT2)
000027        01          EQUIVALENCE (CTA(3),CDT1),(CTA(4),CDT2),(CTA(5),CLT)
000028        01          COMMON/PSYCH/RDVST(5)
000029        01    C     NEXT LINE ADDED FOR BORDER DIV, AUG 78
000030        01          COMMON/BORDIV/INFORT(70)
000031        01    C  RED DECIMATED DIVISION FILE
000032        01    C
000033        01    C     NEXT 2 LINES MODIFIED FOR DECIM. R DIV. ENHANCEMENT, MAY 78
000034        01          COMMON/DCM/DCMATD(50,3),DCMATC,ATHRR,DTHRR,MNT,MNSTAT,ISUPLY,MXTDC
000035        01         *,INARCY,ATHRR1
000036        01    C  DCMATC=COUNT OF RED DIVS CURRENTLY IN DCMATD FILE
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```
000037  01  C  DCMATD(I,1)=INDEX OF WITHDRAWN DIVISION
000038  01  C  DCMATD(I,2)=INDEX OF PARENT ARMY
000039  01  C  DCMATD(I,3)=   0=RELEASE TO FRONT,GREATER THAN ZERO=ARMY CYCLES TO
000040  01  C                 YET EXPIRE BEFORE DIV IS RELEASABLE
000041  01  C  ATHRR=IF ANY RED DIV HAS A STATE LESS THAN THIS VALUE AND ITS CORPS
000042  01  C        MISSION IS ATTACK,IT WILL BE DECLARED AS DECIMATED AND WITH-
000043  01  C        -DRAWN IF TWO OR MORE ACTIVE DIVS REMAIN WITH CORPS.
000044  01  C  DTHRR=SAME AS ATHRR,BUT FOR CORPS DEFEND/DELAY.
000045  01  C  MNT=MIN TIME A RED DIVISION MUST REMAIN IN DECIMATION FILE (ARMY CYC)
000046  01  C  MNSTAT=MIN STATE A RED DIV MUST ACHIEVE BEFORE BEING RECOMMITTED.
000047  01  C  ISUPLY=   0=ALL RED DIVISION COMPETE EQUALLY FOR LOGISTIC SUPPORT.
000048  01  C             1=ONLY DECIMATED DIVISIONS GET MEN AND EQUIPMENT
000049  01        INTEGER DCMATD,DCMATC
000050  01  C
000051  01  C
000052  01        COMMON/CUSHFT/ FDRATO,MAXFLK,ARMLIB,CORLIB,ARMLIR,CORLIR
000053  01        INTEGER ARMLIB,CORLIB,ARMLIR,CORLIR
000054  01  C
000055  01        COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC,IWARTM,IDPT,IDPC,ICPA,IAPT
000056  01        COMMON/PRTSW/ IPRINT(2),IPP,MINIPL,MINIPH,JPP
000057  01  C           ********** WEAK ON-LINE DIVISION DATA **********.
000058  01  C
000059  01        COMMON/SMALST/ SMIFP
000060  03  C     SMIFP = RATIO WITHOUT WEAKEST OR RESERVE CORPS IN ARMY  @AUG 78
000061  01  C     NEXT LINE ADDED TO AVOID UNNEEDED DIVS ASSIGNED TO CORPS, 2/79
000062  01        COMMON/CORDER/CFPTHR(5,11,2)
000063  03  C     THE ARRAY CFPTHR (CORPS,ARMY,SIDE) CONTAINS THE CORPS F/E FORCE
000064  03  C     RATIO MINUS THE APPROPRIATE RESERVE DIV DECISION THRESHOLD
000065  03  C     FOR USE IN DETERMININGTHE OPTIMUM CORPS TO RECEIVE AN ADDITIONAL
000066  03  C     DIVISION.
000067  01  C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000068  01        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000069  01       .               RPOOL(9,3,6),RPOOLC(6)
000070  01        INTEGER RPOOLC,RPOOL
000071  01        REAL MARGIN
000072  01  C
000073  01  C  IDEFSW = DEFENSE SWITCH
000074  01  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000075  01  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000076  01  C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000077  01  C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000078  01  C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000079  01  C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000080  01  C
000081  01  C  LISTPL(4,6)
000082  01  C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000083  01  C           4 = DIV INDEXES OF WEAK DIVS
000084  01  C           6 = PARENT ARMY HQ
000085  01  C  LISTLC(6)
000086  01  C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000087  01  C  RPOOL(4,3,6)
000088  01  C           LIST OF REPLACEMENT DIVS
000089  01  C           4 = DIV INDEXES
000090  01  C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000091  01  C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000092  01  C           6 = PARENT ARMY HQ
000093  01  C  RPOOLC(6)
```

```
000094  01  C            COUNT OF ARMY RESERVE DIVS
000095  01        COMMON/REALL/NALLOC
000096  01  C  NALLOC=SWITCH(INDEX OF PARENT CORPS HDQ) NON-ZERO WHEN A RESERVE
000097  01  C  DIVISION IS COMMITTED TO THE FRONT DURING A DIVISION CYCLE...
000098  01  C  ANEGATIVE VALUE=INDEX OF RED CORPS
000099  01  C  A POSITIVE VALUE=INDEX OF BLUE CORPS
000100  01  C----------HOUSEKEEPING FOR ROUTINE
000101  01        IPP=0
000102  01        KK=NDCYC+1
000103  01        IF(KK.GE.IPRINT(1).AND.KK.LE.IPRINT(2)) IPP=1
000104  01        WRITE (106,9000) ISIDE
000105  01  9000  FORMAT (1H ,6X,'BEGIN CORPS ESTIMATION',5X,'SIDE',I2)
000106  01        JA(RSW=KA(RSW(ISIDE)+1
000107  01        IBASE=30*(ISIDE-1)
000108  01        DO 3000 I=1,5
000109  01          CTA(I)=CTS(I,ISIDE)
000110  01   3000 CONTINUE
000111  01        IF (ISIDE.EQ.2) GO TO 2000
000112  01  C
000113  01  C----------BLUE INITIALIZATION
000114  01        ASSIGN 4001 TO LABEL1
000115  01        ASSIGN 5001 TO LABEL2
000116  01        WRITE( 17,111)(INFORT(I),I=1,12)
000117  01    111 FORMAT(' BORDER DIV FLAGS (INFORT)=',(5X,12I8))
000118  01        AIFP=BAIFP
000119  01        IDELU=UNTCOB(JA(RSW)+1
000120  01        MMSDIV=MMSDVB
000121  01        IPCORP=NALLOC
000122  01        GO TO 2100
000123  01  C
000124  01  C----------RED INITIALIZATION
000125  01   2000 ASSIGN 4002 TO LABEL1
000126  01        ASSIGN 5002 TO LABEL2
000127  01        AIFP=RAIFP
000128  01        IDELU=UNTCOR(JA(RSW)+1
000129  01        MMSDIV=MMSDVR
000130  01        IPCORP=-NALLOC
000131  01  C
000132  01  C----------PROCESSING BY ARMY
000133  01   2100 DO 3100 I=1,NARMY
000134  01  C     NEXTLINE CORRECTED FOR NALLOC, JAN 79
000135  01        IF(ISIDE.EQ.2.OR.IDEFSW.EQ.0 .OR. NALLOC.NE.0) GO TO 77
000136  01        LISTLC(I)=0
000137  01  C     NEXT LINE MODIFIED FOR 9 ARMY RESERVE DIVS, SEP 78
000138  01        DO 76 JJ=1,9
000139  01        LISTPL(JJ,I)=0
000140  01    76  CONTINUE
000141  01    77  CONTINUE
000142  01          CALL CINDEX (I,BTAREE,INDEX,LOVER)
000143  01          CALL PIK (ARMY(INDEX),LOVER+BSARNC,BLARNC,NCRPA)
000144  01          CALL PIK (ARMY(INDEX),LOVER+BSARRC,BLARRC,IRCRP)
000145  01          LOVER=LOVER+BSARC1
000146  01  C
000147  01  C----------PROCESSING BY ON-LINE CORPS
000148  01          DO 3101 J=1,NCRPA
000149  01        IF (J.EQ.IRCRP) GO TO 3991
000150  01            CALL PIK (ARMY(INDEX),LOVER,BLARC1,ICORPS)
```

```
000208  01    6002     IDECC(5,INDECC)=2
000209  01  C    NEXT 3 LINES ADDED TO AVOID UNNEEDED DIVS ASSIGNED TO CORPS, 2/79
000210  01        IF(MSNCR .EQ. 0) CFPTHR(J,I,ISIDE) = CRIFP -CLT
000211  01        IF(MSNCR .EQ. 1) CFPTHR(J,I,ISIDE) = CRIFP -CDT2
000212  01        IF(MSNCR .EQ. 2) CFPTHR(J,I,ISIDE) = CRIFP -CAT2
000213  01            IF (ICRRT.NE.0) GO TO 8000
000214  01    6001    ICRRT=IDELU
000215  01            KPOSN=-1
000216  01        IF(IEACH.GT.127) ICRRT=1
000217  01  C ----------------------EMERGENCY COMMITTMENT--FRONT GT 127-----
000218  01            IDECC(5,INDECC)=1
000219  01            GO TO 8000
000220  01  C    NEXT 3 LINES ADDED TO AVOID UNNEEDED DIVS ASSIGNED TO CORPS, 2/79
000221  01    6010 IF(MSNCR .EQ. 0) CFPTHR(J,I,ISIDE) = SMIFP -CLT
000222  01        IF(MSNCR .EQ. 1) CFPTHR(J,I,ISIDE) = SMIFP -CDT2
000223  01        IF(MSNCR .EQ. 2) CFPTHR(J,I,ISIDE) = SMIFP -CAT2
000224  01            IF (ICRRT.EQ.0) GO TO 8000
000225  01            IDECC(5,INDECC)=3
000226  01            ICRRT=0
000227  01            GO TO 8000
000228  01  C    NEXT LINE ADDED TO AVOID UNNEEDED DIVS ASSIGNED TO CORPS, 2/79
000229  01    6050 CFPTHR(J,I,ISIDE) = CRIFP-CAT2
000230  01        IF(SMIFP .LE.CAT2) GO TO 8000
000231  01  C6050 IF(CRIFP.LE.CAT2) GO TO 8000  BREPLACED BY PRECEDING LINE, AUG 78
000232  01            GO TO 7000
000233  01  C
000234  01  C----------CORPS CAN DEFEND
000235  01    6100    IF (IRDIV.EQ.0) GO TO 6150
000236  01  C
000237  01  C ------------- LIMIT CORPS FRONT SO THAT NO DIV HAS GT 127 MS
000238  01  C               IF DIV IS ALREADY IN RESERVE, FORCE IT TO BE
000239  01  C               COMMITTED IN THE OTHERWISE FAILING CASE
000240  01  C
000241  01          IF(IEACH.GT.127) GO TO 6002
000242  01  C
000243  01  C  ------------------------ END OF FIX (FOR DEF MISSION) ----------
000244  01          IF(SMIFP .GT.CDT2) GO TO 6010
000245  01  C     IF(CRIFP .GT.CDT2) GO TO 6010  BREPLACED BY ABOVE, AUG 78
000246  01            GO TO 6002
000247  02  C    NEXT LINE ADDED TO AVOID UNNEEDED DIVS ASSIGNED TO CORPS, 2/79
000248  01    6150 CFPTHR(J,I,ISIDE) = CRIFP -CDT2
000249  01            IF(SMIFP .LE.CDT2) GO TO 8000
000250  01  C6150 IF(CRIFP .LE.CDT2) GO TO 8000  BREPLACED BY ABOVE, AUG 78
000251  01            GO TO 7000
000252  01  C
000253  01  C----------CORPS WILL DELAY
000254  01    5100  CONTINUE
000255  01  C
000256  01  C ------------- LIMIT CORPS FRONT SO THAT NO DIV HAS GT 127 MS
000257  01  C               IF DIV IS ALREADY IN RESERVE, FORCE IT TO BE
000258  01  C               COMMITTED IN THE OTHERWISE FAILING CASE
000259  01  C
000260  01          IF(IEACH.GT.127) GO TO 6002
000261  01  C
000262  01  C  ------------------------ END OF FIX (FOR DLY MISSION) ----------
000263  01            IF (CRIFP.GT.CLT) GO TO 6010
000264  01            GO TO 6002
```

```
000322  01        IF (((MINICR(2)-MINICR(1)+1)/NDIV)*LT*MMSDIV) GO TO 5105
000323  01            DO 3300 K=1,NDIV
000324  01              IF (K.EQ.IRDIV) GO TO 3300
000325  01    C  SUPPORTABLE DIVISION IS SELECTED BY
000326  01    C  1.  HIGHEST IFP RATIO AND ADEQUATE FRONTAGE SUCH THAT SUPPORTABLE
000327  01    C   AND REINFORCING DIVISIONS BOTH HAVE AT LEAST MINIMUM FRONTAGE
000328  01    C  2.  IF NO DIVISION IN CORPS CAN ACCOMODATE REINFORCING DIVISION
000329  01    C       BECAUSE OF MINIMUM FRONTAGE THEN ASSUMNING CORPS FRONTAGE IS
000330  01    C       ADEQUATE, THEN DIVISION WITH HIGHEST IFP RATIO IS SELECTED AS
000331  01    C       SUPPORTABLE AND ALL DIVISIONS IN CORPS ARE REALLIGNED TO
000332  01    C       ACCOMODATE REINFORCING DIVISION.............JES
000333  01        ISPFRT=(MINIDV(2,K)-MINIDV(1,K)+1)/2
000334  01        IF ((ISELT.NE.0.AND.ISPFRT.LT.MMSDIV) GO TO 3300
000335  01            IF (DRIFP(K).LE.DRFPMX) GO TO 3300
000336  01    C     NEXT 3 LINES ADDED TO AVOID RESERVE BORDER DIV, AUG 78
000337  01          IF((ISIDE .NE. 1) GO TO 3280
000338  01          LFTDIV = IDIV(K)
000339  01          IF((INFORT(LFTDIV).NE. 0) GO TO 3300
000340  01   3280       DRFPMX=DRIFP(K)
000341  01              ISPT=K
000342  01   3300     CONTINUE
000343  01            KPOSN=0
000344  01          IF ((ISPT.NE.0) GO TO 2200
000345  01   5105   ICRRT=0
000346  01        KPOSN=0
000347  01          GO TO 8100
000348  01   2200   DIFPA=DMIFP(MSNCR+1,ISPT)+DAIFP(ISPT)
000349  01          DIFPR=DMIFP(MSNCR+1,IRDIV)+DAIFP(IRDIV)
000350  01          IF ((MINIDV(1,ISPT).EQ.MINICR(1)).AND.(DIFPA.LT.DIFPR))
000351  01       .     KPOSN=1
000352  01          IF ((MINIDV(2,ISPT).EQ.MINICR(2)).AND.(DIFPR.LT.DIFPA))
000353  01       .     KPOSN=1
000354  01    C
000355  01    C---------ALLOCATE ARTY AND AIR SUPPORT TO DIVISIONS
000356  01    C  IF RED DIV,TEST STATE FOR DECIMATED CONDITION
000357  01    8100   IF ((ISIDE.EQ.1) GO TO 8300
000358  01    C     NEXT 3 LINES MODIFIED, MAY 78
000359  01          LFTDIV = NDIV
000360  01    C     NEXT 2 LINES MODIFIED TO ALLOW A 1-DIV CORPS, OCT 78
000361  01          IF (LFTDIV.LT.2) GO TO 8300
000362  01          IF (LFTDIV.EQ.2 .AND. IRDIV.NE.0) GO TO 8300
000363  01          DO 3250 K=1,LFTDIV
000364  01    C  DO NOT DECLARE DECIMATED ANY RESERVE DIVS
000365  01          IF (K.EQ.IRDIV) GO TO 3250
000366  01    C     NEXT 3 LINES MODIFIED TO RETURN TO INDIV. REPLACEMENT, SEP 78
000367  01          IF(NACYC.GT.INARCY)GO TO 3250
000368  01    C     IF (RDVST(K).LT. ATHRR)) GO TO 328
000369  01    C     GO TO 3250
000370  01      325 IF (MSNCR.EQ.2.AND.RDVST(K).GE.ATHRR) GO TO 3250
000371  01          IF (MSNCR.LT.2.AND.RDVST(K).GE.DTHRR) GO TO 3250
000372  01    C WITHDRAW  DIV TO DECIMATION FILE
000373  01      328 DCMATC=DCMATC+1
000374  01          DCMATD(DCMATC,1)=IDIV(K)
000375  01    C SAVE INDEX OF PARENT UNIT
000376  01          DCMATD(DCMATC,2)=I
000377  01          DCMATD(DCMATC,3)=MNT
000378  01    C
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000379  01   C WITHDRAW DIV FROM CORPS AND SPREAD NEIGHBORING DIV WITH HIGHEST
000380  01   C IFP RATIO
000381  01   C
000382  01   C  PSEUDO CALL TO RECOND
000383  01        CALL RECOND (K*2)
000384  01   C
000385  01   C      K = 1 AND GO TO CHANGED 10AUG73DOC
000386  01        GO TO 8100
000387  01   3250 CONTINUE
000388  01    8300 IF(MSNCR.EQ.2) GO TO 8302
000389  01   C    NEXT 8 LINES ADDED TO AVOID SHIFTING BORDER DIV, AUG 78
000390  01        IBORDC = 0
000391  01        IF(ISIDE .EQ. 2) GO TO 359
000392  01        DO 358 K=1,NDIV
000393  01        LFTDIV = IDIV(K)
000394  01        IF(INFORT(LFTDIV) .EQ. 0) GO TO 358
000395  01        IBORDC = K
000396  01        GO TO 365
000397  01     358 CONTINUE
000398  01     359 CALL DVSHFT(ISIDE)
000399  01   C
000400  01        IF(IPP.NE.0) WRITE(IO6,86)
000401  01     86   FORMAT(50X,23HDIVISION BOUNDS SHIFTED)
000402  01     365 DO 8308 IJK=1,5
000403  01        DRIFP(IJK)=0.
000404  01    8308 CONTINUE
000405  01   C
000406  01        DO 8301 IJOHN=1,NDIV
000407  01        IF(IJOHN.EQ.1RDIV)GO TO 8301
000408  01        CALL CALCFP(DRIFP(IJOHN),IJOHN,ISIDE)
000409  01        IF(IPP.GT.0) WRITE(IO6,9201) IDIV(IJOHN),FIFP7,ENIFP2,DRIFP(IJOHN)
000410  01        IF(IDEFSW.LE.0.OR.ISIDE.EQ.2)GO TO 8301
000411  01   C    PRINT 361,I,IJOHN,LISTLC(I),IPOLMX,NCCYC,ICPA,MARGIN,DRIFP(IJOHN)
000412  01   C 361 FORMAT(' **ESTIMC - ARMY',I2,', DIV',I3,', LISTLC',4I3,
000413  01   C    . ' MARGIN:',F5.1,', DRIFP:',F10.2)
000414  01        IF(LISTLC(I).EQ(IPOLMX)       GO TO 8301
000415  01   C     IS THIS LAST CORPSCYCLE OF ARMY CYCLE??
000416  01        IF(MOD(NCCYC,ICPA).GT.0) GO TO 8301
000417  01   C    NEXT 3 LINES ADDED FOR BORDER DIV, AUG 78
000418  01        LFTDIV = IDIV(IJOHN)
000419  01        IFRNT=MINIDV (2,IJOHN)-MINIDV(1,IJOHN) +1
000420  01        IF(INFORT(LFTDIV).LT. 0) GO TO 391
000421  01        IF(INFORT(LFTDIV).NE. 0) GO TO 8301
000422  01   C    FRCRP=FLOAT(NCCYC)/FLOAT(ICPA)
000423  01   C    INDCRP=NCCYC/ICPA
000424  01   C    FORM CANDIDATE LIST
000425  01   C    IF(IFRNT.GT.(MMSDVB+1).OR.DRIFP(IJOHN).LE.MARGIN)GO TO 8301
000426  01        IF(IFRNT.GT.(MMSDVB+1).AND.IBORDC.EQ. 0)GO TO 8301
000427  01        IF(DRIFP(IJOHN).LE.MARGIN) GO TO 8301
000428  01     391 WRITE(I7,1330) I,J
000429  01    1330 FORMAT(//,4X,'WOLD LOGIC CHECKING ARMY',I3,', CORPS',I3)
000430  01        WRITE(I7,1331) IDIV(IJOHN),FIFP7,ENIFP2,
000431  01       .   DRIFP(IJOHN),MARGIN,IFRNT,MMSDVB
000432  01    1331  FORMAT (1H ,'DVSN',I3,5X,'FR IFP',F9.3,5X,'EN IFPS',2F9.3,5X,
000433  01       .        'A/D RATIO',F7.2,' THRESHOLD',F7.2,' FRONT',I4,
000434  01       .        ' MIN FRONT',I6)
000435  01   C    WRITE(I7,1331) IDIV(IJOHN),FIFP7,ENIFP2,
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000436   01   C     *   DRIFP(IJOHN),MARGIN
000437   01   C1331  FORMAT (1H ,'DVSN',I3,5X,'FR IFP',F9.3,5X,'EN IFPS',2F9.3,5X,
000438   01   C     *        'A/D RATIO',F7.2,' THRESHOLD',F7.2)
000439   01   C     DOES DIV ALREADY EXIST IN LISTPL??
000440   01         IRPOLC=RPOOLC(1)
000441   01   C     IF(IRPOLC.LE.0) WRITE(17,1333)
000442   01   C1333 FORMAT(10X,'NO.OF RESERVE DIVS=0, CHECK LISTPL')
000443   01         IF(IRPOLC.LE.0) GO TO 88
000444   01   C     WRITE(17,1334) IRPOLC
000445   01   C1334 FORMAT(10X,'NO.OF RESERVE DIVS=',I2,', CHECK THIS DIV STATUS')
000446   01         DO 200 JS=1,IRPOLC
000447   01         IRPOO=RPOOL(JS,2,1)
000448   01   C     IF(IRPOO.EQ.IDIV(IJOHN)) WRITE(17,1336)
000449   01   C1336 FORMAT(15X,'THIS DIV IS ALREADY IN REPLACEMENT SCHEDULE')
000450   01         IF(IRPOO.EQ.IDIV(IJOHN)) GO TO 8301
000451   01         IRPOO=RPOOL(JS,1,1)
000452   01   C     IF(IRPOO.EQ.IDIV(IJOHN)) WRITE(17,1337)
000453   01   C1337 FORMAT(15X,'THIS DIV IS ALREADY AN ARMY RESERVE DIV')
000454   01         IF(IRPOO.LE.0) RETURN 0
000455   01         IF(IRPOO.EQ.IDIV(IJOHN)) GO TO 8301
000456   01     200 CONTINUE
000457   01   C     WRITE(17,1338)
000458   01   C1338 FORMAT(20X,'THIS DIV IS NOT ALREADY IN RPOOL ARRAY ')
000459   01   C           ADD UNIT TO LIST
000460   01    88   ICONT=LISTLC(1)
000461   01   C     NEXT LINE MODIFIED TO ALLOW 9 ARMY RES DIVS, OCT 78
000462   01         IF(ICONT.GE.9) GO TO 8301
000463   01         ICAND=IDIV(IJOHN)
000464   01         IF(ICONT.EQ.0) GO TO 90
000465   01           DO 89 IWOLD=1,ICONT
000466   01   C       IF(ICAND.EQ.LISTPL(IWOLD,1))WRITE(17,1339)
000467   01           IF(ICAND.EQ.LISTPL(IWOLD,1)) GO TO 8301
000468   01   C1339   FORMAT(10X,' THIS WOLD IS ALREADY IN CANDIDATE LIST ')
000469   01    89     CONTINUE
000470   01    90   LISTLC(1)=LISTLC(1)+1
000471   01           ICONT=LISTLC(1)
000472   01           LISTPL(ICONT,1)=ICAND
000473   01   C     WRITE(17,1335) LISTLC(1),(LISTPL(ID,1),ID=1,4)
000474   01   C1335 FORMAT(20X,' THIS DIV ADDED TO WOLD LISTLC.'/,
000475   01   C     *   10X,'LISTLC = ',I5,',LISTPL = ',4I5)
000476   01    8301 CONTINUE
000477   01    8302 CONTINUE
000478   01         IARTY = ARTYCR*10.0
000479   01           CALL ALLOC(IARTY,DRIFP,NARTY,NDIV)
000480   01           CALL ALLOC (ACCR,DRIFP,NACSQ,NDIV)
000481   01   C---------ALLOCATE ATTACK HELICOPTER PERCENTAGES TO DIVISIONS (BLUE)
000482   01         IF (ISIDE.EQ.1) CALL ALLOC (100,DRIFP,NHELPT,NDIV)
000483   01   C
000484   01   C---------REPACK CORPS/DIVISION DATA
000485   01             GO TO LABEL2
000486   01    5001     CALL PAKBC
000487   01             GO TO 3999
000488   01    5002     CALL PAKRC
000489   01    3999   IF (NALLOC.NE.0) RETURN
000490   01    3991   LOVER=LOVER+BLARC1
000491   01     3101    CONTINUE
000492   01   C     NEXT 10 LINES ADDED TO GET ON-LINE DIV TO REPLACE BORDER DIV, 11/78
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AD-A069 956 GENERAL RESEARCH CORP MCLEAN VA OPERATIONS ANALYSIS GROUP F/G 15/7
CONCEPTS EVALUATION MODEL MODIFICATIONS FOR HEAVY/LIGHT FORCES --ETC(U)
MAR 79 J E SHEPHERD MDA903-78-C-0466
UNCLASSIFIED 1068-01-79-CR NL

2 OF 2
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000493  01          IF(ISIDE .EQ. 2) GO TO 3100
000494  01          ICONT = LISTLC(I)
000495  01          IF(ICONT .LE. 0) GO TO 3100
000496  01          ICAND = 0
000497  01          DO 465 J=1,ICONT
000498  01          JOHN = LISTPL(J,I)
000499  01          IF(INFORT(JOHN) .NE. 0) ICAND = ICAND +1
000500  01      465 CONTINUE
000501  01          ICAND = ICAND -RPOOLC(I)
000502  01          IF(ICAND .GT. 0) CALL RECONA(I,NCRPA, IRCRP, ICAND)
000503  01     3100 CONTINUE
000504  04          WRITE(17,495)((CFPTHR(J,I,ISIDE),J=1,5),I=1,NARMY)
000505  04      495 FORMAT(' CFPTHR',10X,10F10.3/(20X,10F10.3))
000506  01    C
000507  01    C----------EXIT
000508  01          RETURN
000509  01          END

END ELT.


@MOG,P  •••••• ESTIMD/HL ••••••


@ELT,L 75PRINT1.ESTIMD/HL
ELT007 S73RIA 02/27/79 14:20:32 (2,)
000001  00          COMPILER (XM = 1)
000002  00          SUBROUTINE ESTIMD (NARMY,ARMY,NCRP,CORPS,ESTRTN,ISIDE)
000003  00          DIMENSION ARMY(1),CORPS(1)
000004  00           INCLUDE BTARMY
000005  00           INCLUDE BTCORP
000006  00          COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),
000007  00         •              IBDE(3),MINB(2,3),MANBNB(50,3),MSNB(3),IDRB(3),
000008  00         •              IGRB(3),IDSB(3),LCAB(3),IHRB(3),IGBDE,JARTPB,IBMPCT
000009  00         •             ,IDSART(3),IWDS(3),IBDECT      BA74
000010  00          INTEGER DSABNB,DGABNB,GSABNB,ACSQB
000011  00    C  INDEX OF RESERVE BLUE BDES AND RED DIV=IRESUT(50,2),
000012  00    C  COUNT OF RESERVE BLUE BDES AND RED DIVS= NRESUT(2)
000013  00          COMMON/RUNITS/IRESUT(50,2,2),NRESUT(2)
000014  00    C           •••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000015  00    C
000016  00          COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000017  00         •               RPOOL(9,3,6),RPOOLC(6)
000018  00          INTEGER RPOOLC
000019  00            INTEGER RPOOL
000020  00          REAL MARGIN
000021  00    C
000022  00    C  IDEFSW = DEFENSE SWITCH
000023  00    C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000024  00    C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000025  00    C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=9)
000026  00    C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000027  00    C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000028  00    C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000029  00    C
000030  00    C  LISTPL(9,6)
000031  00    C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
```

```
000032  00  C            4 = DIV INDEXES OF WEAK DIVS
000033  00  C            6 = PARENT ARMY HQ
000034  00  C  LISTLC(6)
000035  00  C            COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000036  00  C  RPOOL(4,3,6)
000037  00  C            LIST OF REPLACEMENT DIVS
000038  00  C            4 = DIV INDEXES
000039  00  C            2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000040  00  C            3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000041  00  C            6 = PARENT ARMY HQ
000042  00  C  RPOOLC(6)
000043  00  C    NEXT LINE ADDED FOR RED ARMY RESERVE POOL, DEC 78
000044  00        COMMON/IREPL/IPOOLR(9,3,1)),IPOOLC(1))
000045  00        COMMON/CRHLOS/INDCRP,CRLOSS(5)
000046  00        COMMON/MANST/MANSTB,MANSTR
000047  00        COMMON/MANUNT/BMAN(50),BAB,BCAS,BMLPCT,CUMMLB(5),BBMIFP(3,5,5),
000048  00       *              RMAN(50),RAB,RCAS,HEL(KL(5)
000049  02  C     COMMON/IWPNTP/NTNKS(2),NLARMR(2),NMELOS(2),NANTNK(2)
000050  00  C
000051  00  C---------CLEAR CAS DATA FOR ESTIMATION
000052  00        BCAS=0.
000053  00        RCAS=0.
000054  00        MANSTB=100
000055  00        NRESUT(ISIDE)=0
000056  00        MANSTR=100
000057  00  C
000058  00  C---------PROCESS ESTIMATES BY ARMY
000059  00        DO 3000 I=1,NARMY
000060  00          CALL CINDEX (I,BTAREE,INDEXA,LOVERA)
000061  00          CALL PIK (ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORPS)
000062  00          CALL PIK (ARMY(INDEXA),LOVERA+BSARRC,BLARRC,IRC)
000063  00          LOVERA=LOVERA+BSARC)
000064  01  C    NEXT 17 LINES ADDED FOR ARMY RESERVE POOLS, DEC 78
000065  00        IPLSZ = RPOOLC(I)
000066  00        IF(ISIDE .EQ. 2) IPLSZ = IPOOLC(I)
000067  01        IF(IPLSZ .LE. 0) GO TO 83
000068  00        DO 35 K=1,IPLSZ
000069  00        IF(ISIDE .EQ. 1) GO TO 33
000070  00        NRESUT(2) = NRESUT(2) +1
000071  00        IKN = NRESUT(2)
000072  00        IRESUT(IKN,1,2) = IPOOLR(K,1,1)
000073  00        GO TO 35
000074  00     33 IDIV = RPOOL(K,1,1)
000075  00        CALL PIKBV(IDIV,0)
000076  00        DO 34 KN=1,3
000077  00        IF(KN .EQ. IGBDE) GO TO 34
000078  00        NRESUT(1) = NRESUT(1) +1
000079  00        IKN = NRESUT(1)
000080  00     34 IRESUT(IKN,1,1) = IBDE(KN)
000081  00     35 CONTINUE
000082  00  C
000083  00  C---------WITHIN ARMY, PROCESS BY ON-LINE CORPS
000084  01     83   DO 3100 J=1,NCORPS
000085  00            CALL PIK (ARMY(INDEXA),LOVERA,BLARC),ICORPS)
000086  00            INDCRP=ICORPS
000087  00            CALL CINDEX (ICORPS,BTCREE,INDEXC,LOVERC)
000088  00            CALL PIK (CORPS(INDEXC),LOVERC+BSCHND,BLCHND,NDIV)
```

```
000070  00        ITWICE=0
000071  00  C
000072  00  C  SET SWITCH TO SHOW BLUE IS ESTIMATING
000073  00        IFRIND=1
000074  00  C---------UNPACK BLUE UNIT DATA - SELECT A RESERVE BDE IF NECESSARY
000075  00  11    CALL PIKBV(IDIV,I)
000076  00        THDIV=(MINBV(2)-MINBV(1))/3
000077  00  C    NEXT LINE ADDED FOR BORDER DIV, AUG 78
000078  00        IF(INFORT(IDIV) .NE. 0) GO TO 290
000079  00        IF(ITWICE.NE.0.OR.IRSRB.EQ.0)GO TO 2020
000080  00  C  DON'T PROCESS DIVISIONS WITH GHOST BRIGADE
000081  00        IF(IGBDE.NE.0)GO TO 2030
000082  00  C  DETERMINE WEAKEST BRIGADE
000083  00        MANST = 101
000084  00        DO 15 I=1,3
000085  00        IF(ISTB(I).GE.MANST)GO TO 15
000086  00        MANST = ISTB(I)
000087  00        IR = I
000088  00  15    CONTINUE
000089  00        IF(IR.EQ.IRSRB)GO TO 2030
000090  00        IF(ISTB(IRSRB).LT.ISTB(IR)+ISTCON)GO TO 2030
000091  00  C  NEW BDE TO RESERVE
000092  00        MINB(1,IRSRB) = MINB(1,IR)
000093  00        MINB(2,IRSRB) = MINB(2,IR)
000094  00        MINISC(1,IRSRB) = MINB(1,IR)
000095  00        MINISC(2,IRSRB) = MINB(2,IR)
000096  00        IRSRB = IR
000097  00        GO TO 2030
000098  00  2020  CALL ABDSEL
000099  00  2030  CONTINUE
000100  00  C
000101  00  C---------TURN OFF SITUATION ESTIMATE FLAGS
000102  00        DO 3000 I=1,6
000103  00          IDES(I)=0
000104  00          IFLAG(I)=0
000105  00   3000 CONTINUE
000106  00  C
000107  00  C---------SET UP POINTER ARRAY FOR BDES AND ESTB ARRAYS
000108  00        ISEC=0
000109  00        DO 3010 I=1,3
000110  00          IF (I.EQ.IRSRB) GO TO 2000
000111  00          ISEC=ISEC+1
000112  00          JBDE=ISEC
000113  00          DO 3011 J=1,2
000114  00            MINISC(J,JBDE)=MINB(J,I)
000115  00   3011   CONTINUE
000116  00          MSNBE(JBDE)=MSNB(I)
000117  00          GO TO 2010
000118  00   2000   JBDE=3
000119  00   2010   INDEXB(JBDE)=I
000120  00   3010 CONTINUE
000121  00  C
000122  00  C---------CLEAR ALL ARTY AUGMENTATION ARRAYS
000123  00   2100 DO 3099 I=1,6
000124  00          NDSB(I)=0
000125  00          NDRB(I)=0
000126  00          NGRB(I)=0
```

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000241   00          IHRB(J)=IVAL
000242   00    3501 CONTINUE
000243   00         GO TO 4100
000244   00    5003 IVAL=2
000245   00         GO TO 5005
000246   00    5004 IVAL=1
000247   00    5005 J=INDEXB(IVAL)
000248   00         IHRB(J)=3
000249   00         J=INDEXB(3-IVAL)
000250   00         IHRB(J)=1
000251   00    C
000252   00    C---------STORE ALL ESTIMATION DATA IN DIVISION DATA ARRAYS
000253   00     4100 IF (IDESR.NE.0) IRSRB=0
000254   00    C     NEXT LINE ADDED TO COMMIT RESERVE IN A DRAW, NOV 78
000255   00          IF(IRSRB.NE.0 .AND. IGBDE.EQ.0) CALL COMIT
000256   00          DO 3200 I=1,3
000257   00            JBDE=INDEXB(I)
000258   00            IF (JBDE.EQ.IRSRB) GO TO 3200
000259   00            JFLAG=IDES(I)
000260   00            MSNB(JBDE)=MSNBE(JFLAG)
000261   00            DO 3201 J=1,2
000262   00              MINB(J,JBDE)=MINISC(J,JFLAG)
000263   00     3201     CONTINUE
000264   00            IDSB(JBDE)=NDSB(JFLAG)
000265   00            IDRB(JBDE)=NDRB(JFLAG)
000266   00            IGRB(JBDE)=NGRB(JFLAG)
000267   00          FACT=AMAX1(1.,FRART(I)*FLOAT(NGRB(JFLAG)))
000268   00          BART = FLOAT(NDSB(JFLAG)*IQDS(IRSRB)+IQDS(JBDE))*FACT
000269   00          BART = BART + BGSSHR*FLOAT(NGRB(JFLAG))*(FLOAT(GSABNB)/10.
000270   00         .             +FLOAT(DGABNB))*FRART(I)*FLOAT(IGRB(JFLAG))
000271   00    C  BLUE ESTIMATION EFFECTIVE ARTY FIREPOWER NOT SAVED IN HISTORY ARRAY
000272   00          CALL DBSET(MSNB(JBDE),ISTB(JBDE),MYINT(BART),0,MINB(2,JBDE)-
000273   00         .             MINB(1,JBDE)+1,IBDE(JBDE),1)
000274   00            CALL SETMD (MINISC(1,JFLAG),MINISC(2,JFLAG),IBDE(JBDE),1)
000275   00     3200 CONTINUE
000276   00    C
000277   00    C  TEST FOR ATK/DLY SITUATION
000278   00          IDL=0
000279   00          IAT=0
000280   00          DO 121 I=1,3
000281   00          M=IDES(I)
000282   00          IF (MSNBE(M).EQ.2) IAT=M
000283   00          IF (MSNBE(M).EQ.0) IDL=M
000284   00     121  CONTINUE
000285   00          IF (IAT.EQ.0.OR.IDL.EQ.0) GO TO 5500
000286   00    C  WE HAVE ATK/DLY SITUATION
000287   00    C  WITHIN A DIV
000288   00    C  SET SWITCH FOR RE ESTIMATION
000289   00          IF ((ITWICE.NE.0).OR.(IGBDE.NE.0)) GO TO 4204
000290   00          ITWICE=1
000291   00          GO TO 11
000292   00     4204 MSNBE(IAT)=MSNBE(IAT)-1
000293   00    C   MISSION ATTACK DECREMENTED TO DEFEND   SEE IF ARTILLERY SUPPORT
000294   00    C  STILL REQUIRED FOR DEFEND MISSION
000295   00          JFLAG=IAT
000296   00          IFLKSW(1)=0
000297   00          IFLKSW(2)=0
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000298        00          CALL ESTBI
000299        00          GO TO 5000
000300        00    C
000301        00    C     NEXT 35 LINES ADDED FOR BORDER DIV, AUG 78
000302        00      290 IRSRB = 0
000303        00          SRIFP = 0.
000304        00          SBART = 0.
000305        00          DO 309 I=1,3
000306        00          MSNB(I) = 1
000307        00          IDSB(I) = 0
000308        00          IDRB(I) = 1
000309        00          IGRB(I) = 1
000310        00          SBART = SBART +IQDS(I)*FRART(I)+BGSSHR*GSABNB/10.+DGABNB*FRART(I)
000311        00            FRIFP=0.
000312        00            DO 3002 J=1,NBNTPB
000313        00              FRIFP=FRIFP+BBNIFP(J)*FLOAT(MANBNB(J,I))
000314        00     3002     CONTINUE
000315        00          FRIFP= FRIFP*0.01*ISTB(I)
000316        00            CALL UNITS (0,MINB(1,1),MINB(2,1),RNBN,NDUMMY,MKL,1)
000317        00          ENIFP=0.
000318        00            DO 3003 J=1,NBNTPR
000319        00              ENIFP=ENIFP+RBNIFP(J)*RNBN(J)
000320        00     3003     CONTINUE
000321        00          ENIFP=RAIFP*RNBN(NBNTPR+1) +(ENIFP*0.01*MANSTR)
000322        00          RRIFP = ENIFP/FRIFP
000323        00          SRIFP = SRIFP +RRIFP
000324        00          IF(I .EQ. 3) GO TO 313
000325        00      309 RIFP(I) = RRIFP
000326        00      313 FRACBD(1,IDIV) = RIFP(1)/SRIFP
000327        00          FRACBD(2,IDIV) = RIFP(2)/SRIFP
000328        00          FRACBD(3,IDIV) =RRIFP/SRIFP
000329        00          WRITE(106,321)IDIV,(FRACBD(KJ,IDIV),KJ=1,3),RIFP(1),RIFP(2),RRIFP
000330        00      321 FORMAT(' **ESTMBV** RESOURCE ALLOC TO BORDER BDES, DIV',I3,3F9.4,
000331        00         *' RATIOS:'3F10.2)
000332        00          DO 331 JBDE=1,3
000333        00          BART = SBART*FRACBD(JBDE,IDIV)
000334        00            CALL DBSET(MSNB(JBDE),ISTB(JBDE),MYINT(BART),0,MINB(2,JBDE)=
000335        00         *              MINB(1,JBDE)+1,IBDE(JBDE),1)
000336        00            CALL SETMD (MINB(1, JBDE),MINB(2,JBDE),IBDE(JBDE),1)
000337        00      331 CONTINUE
000338        00    C---------REPACK DIVISION DATA AND EXIT
000339        00    5500  CALL PAKBV(IDIV,1)
000340        00          IF (IRSRB.EQ.0) RETURN
000341        00    C  IS THIS A GHOST BDE
000342        00          IF (IGBDE.EQ.IRSRB) RETURN
000343        00          NRESUT(1)=NRESUT(1)+1
000344        00          I=NRESUT(1)
000345        00          IRESUT(I,1,1) = IBDE(IRSRB)
000346        00          IRESUT(I,2,1) = ICORPS
000347        00          RETURN
000348        00          END

END ELT.

BMDG.P  •••••• ESTMI/CYCLE1  ••••••

•••••• ESTMI/COMIT ••••••
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@ELT,L 75PRINT1,ESTRI/CYCLE1
ELTOU7 S7JRIA 02/27/79 19:20:38 (0,)
000001   00          COMPILER (XM = 1)
000002   00          SUBROUTINE ESTRI
000003   00    C
000004   00    C---------ROUTINE TO ESTIMATE BEST OUTCOME FOR A RED DIV W/MIN ARTY SPT
000005   00    C
000006   00          COMMON/ESTR/JFLAX,KOUX,ISPTSX
000007   00    C     NEXT LINE ADDED TO INCREASE RED ARTY FIRE AGAINST BUNKERS, 1/79
000008   00          COMMON/NPERD/NTCYC,NACYC
000009   00          COMMON/RVDATA/MINRV(2),DSABNR,DGABNR,GSABNR,ACSQR,ISTR,MANBNR(50),
000010   00         *              MSNR,IDRR,IGRR,LCAR,JARTPR,IDVTP,IRDS
000011   00          INTEGER DSABNR,DGABNR,GSABNR,ACSQR
000012   00    C
000013   00    C---------ESTIMATE OUTCOME W/O ADDITIONAL ARTY
000014   00          IDRR=0
000015   00          IGRR=0
000016   00          CALL ESTRO
000017   00          IF (ISPTSX.NE.0) GO TO 9999
000018   00    C
000019   00    C---------BRANCH ON OUTCOME
000020   00          KOUXSV=KOUX
000021   00          IF (KOUX-1) 2000,2001,9999
000022   00    C
000023   00    C---------OUTCOME WAS A LOSS
000024   00     2000 IDRR=1
000025   00          IGRR=1
000026   00          CALL ESTRO
000027   00          IF (KOUX.NE.KOUXSV) GO TO 2100
000028   00          IDRR=0
000029   00          IGRR=0
000030   00          GO TO 9999
000031   00     2100 KOUXSV=KOUX
000032   00          IGRR=0
000033   00          CALL ESTRO
000034   00          IF (KOUX.EQ.KOUXSV) GO TO 9999
000035   00          IGRR=1
000036   00          KOUX=KOUXSV
000037   00          CALL ESTRO                                    WARTINTEL
000038   00          GO TO 9999
000039   00    C
000040   00    C---------OUTCOME WAS A DRAW
000041   00     2001 IDRR=1
000042   00    C     NEXT 2 LINES CANCELED TO BOOST ARTY IN CASE OF DRAW, NOV 78
000043   00    C     CALL ESTRO
000044   00    C     IF (KOUX.GT.KOUXSV) GO TO 9999
000045   00          IGRR=1
000046   00          CALL ESTRO
000047   00    C     NEXT 5 LINES CANCELED TO BOOST ARTY IN CASE OF DRAW, NOV 78
000048   00    C     IF (KOUX.GT.KOUXSV) GO TO 9999
000049   00    C     IDRR=0
000050   00    C     IGRR=0
000051   00    C
000052   00    C     CALL ESTRO                                    WARTINTEL
000053   00    C     NEXT 3 LINES ADDED FOR INCREASED RED ARTY PREP FIRE, 1/79
000054   00     9999 IF(NACYC .GT. 1) RETURN
000055   00          IDRR = 1
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000056   00          IGRR = 1
000057   00    C----------EXIT
000058   00          RETURN
000059   00          END

END ELT.


@MDG,P  •••••• EXAMIN/REDMOV ••••••


@ELT,L 7SPRINT1.EXAMIN/REDMOV
ELT007 S73R1A 02/27/79 19:20:39 (3,)
000001   00          COMPILER (XM=1)
000002   00          SUBROUTINE EXAMIN
000003   00          INCLUDE PROC
000004   00    C
000005   00    C  THIS SUBROUTINE EXAMINES WEAK ONLINE DIVS FOR REPLACEMENT BY
000006   00    C  ARMY POOL RESERVES
000007   00    C
000008   00          COMMON/AIRENV/KAIRSW(2)
000009   00    C
000010   00    C           •••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000011   00    C
000012   00    C     NEXT 2 LINES MODIFIED FOR 9 ARMY RESERVE DIVS, SEP 78
000013   00          COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000014   00         •               RPOOL(9,3,6),RPOOLC(6)
000015   00          INTEGER RPOOLC
000016   00            INTEGER RPOOL
000017   00          REAL MARGIN
000018   00    C
000019   00    C  IDEFSW = DEFENSE SWITCH
000020   00    C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE * 1, AND ATK/DEF DRIFP IS
000021   00    C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000022   00    C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=9)
000023   00    C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000024   00    C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000025   00    C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000026   00    C
000027   00    C  LISTPL(9,6)
000028   00    C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000029   00    C           9 = DIV INDEXES OF WEAK DIVS
000030   00    C           6 = PARENT ARMY HQ
000031   00    C  LISTLC(6)
000032   00    C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000033   00    C  RPOOL(9,3,6)
000034   00    C           LIST OF REPLACEMENT DIVS
000035   00    C           9 = DIV INDEXES
000036   00    C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000037   00    C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000038   00    C           6 = PARENT ARMY HQ
000039   00    C  RPOOLC(6)
000040   00    C           COUNT OF ARMY RESERVE DIVS
000041   00    C
000042   00          COMMON/WHOAMI/IAMWHO(3)
000043   00          COMMON/CDELAY/UNTCUB(2),UNTCDR(2),CRESUB(2),CRESDR(2)
000044   00          COMMON/BARM/NBARMY,BARMY(8)

•••••• ESTRI/ •••••
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000045  00        COMMON/BCORP/NBCORP,BCORPS(49)
000046  00  C
000047  00  C
000048  00  C     NEXT 2 LINES REPLACED TO ELIMINATE DELAY, OCT 78
000049  00  C      JAIRSW=KAIRSW(I)+1
000050  00  C      IDLY=UNTCDB(JAIRSW)+1
000051  00        IDLY= 0
000052  00        DO 1000 JARMY=1,NBARMY
000053  00  C   FIND WEAKEST CANDIDATE FOR REPLACEMENT IN THI ARMY
000054  00      15 ICND=0
000055  00         KOUNT=LISTLC(JARMY)
000056  00         CALL CANDTE(JARMY,ICND)
000057  03  C      WRITE(17, 62) ICND
000058  03  C   62 FORMAT(5X,'EXAMIN - RETURN FROM CANDTE - ICND =',I3)
000059  00         IF(ICND.LE.0) GO TO 1000
000060  00  C   FIND STRONGEST REPLACEMENT FOR THIS ARMYS CANDIDATE
000061  00         IAMWHO(3)=JARMY
000062  00  C     NEXT LINE MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000063  00         CALL REPLST(RPOOL,RPOOLC,1)
000064  00         IF (IAMWHO(1).LE.0) GO TO 1000
000065  00  C ***********************************************************
000066  00  C *                                                         *
000067  00  C *       RIGHT HERE, THE STATE RATIO OF IAMWHO(1) TO ICND  *
000068  00  C *       SHOULD BE CALCULATED AND COMPARED TO WOLDTH       *
000069  00  C *       IF RATIO IS LESS THAN WOLDTH, THEN LOGIC SHOULD   *
000070  00  C *       TRANSFER TO 1000, WITH IAMWHO(1) SET TO ZERO      *
000071  00  C *                                                         *
000072  00  C ***********************************************************
000073  00  C
000074  00  C     NEXT LINE MODIFIED TO INCLUDE CAV IN BLDIFP, SEP 78
000075  00  C     NEXT LINE MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000076  00         CALL BLDIFP(ICND,CUMIFP,STATE,WBHIFP,1)
000077  00         WKMNBN=CUMIFP
000078  00         WKSTAT=STATE/100.
000079  00  C     NEXT LINE REPLACED TO INCLUDE CAV IN BLDIFP, SEP 78
000080  00  C      WEAKFP=STATE*(BHIFP(ICND)+CUMIFP)/100.
000081  00         WEAKFP= WKSTAT*CUMIFP +WBHIFP
000082  00  C
000083  00         IRPL=IAMWHO(1)
000084  00         IRDV=RPOOL(IRPL,1,JARMY)
000085  00  C     NEXT LINE MODIFIED TO INCLUDE CAV IN BLDIFP, SEP 78
000086  00  C     NEXT LINE MODIFIED FOR RED ARMY RESERVE POOL, DEC 78
000087  00         CALL BLDIFP(IRDV,CUMIFP,STATE,SBHIFP,1)
000088  00         STSTAT=STATE/100.
000089  00  C     NEXT LINE REPLACED TO INCLUDE CAV IN BLDIFP, SEP 78
000090  00  C      STRGFP=STATE*(BHIFP(IRDV)+CUMIFP)/100.
000091  00         STRGFP= STSTAT*CUMIFP +SBHIFP
000092  00         STMNBN=CUMIFP
000093  00  C
000094  00  C              COMPUTE FIREPOWER RATIO OF RESERVE DIV TO WOLD
000095  00         RATIO = 0.
000096  00         IF(WEAKFP.GT.0.) RATIO=STRGFP/WEAKFP
000097  00          WRITE(17,8) IRDV,SBHIFP,STMNBN,STSTAT,
000098  00        * STRGFP,ICND,WBHIFP,WKMNBN,WKSTAT,WEAKFP,RATIO,WOLDTH
000099  00      8  FORMAT(2X,'STRONGEST RES DIV',I3,' CAV IFP=',F6.1,'* MNBNIFP X STATE'
000100  00        *'E (',F6.1,'X',F5.4,') = TOT IFP=',F6.1,/,
000101  00        * 2X,'      WEAKEST WOLD',I3,' CAV IFP=',F6.1,'* MNBNIFP X STATE (',
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000102   00        *    ,F6.1,' X',F5.2,') = TOT (FP=',F6.1,/,
000103   00        *  25X,'RATIO=',F5.2,' ?GE? THRESHOLD',F5.2,', SELECTED?')
000104   00         IF(RATIO.LT.WOLDTH) GO TO 1000
000105   00    C
000106   00    C  WE HAVE A REPLACEMENT PLAN, MAKE IT
000107   00         RPOOL(IRPL,2,JARMY)=ICND
000108   00         RPOOL(IRPL,3,JARMY)=IDLY
000109   00         LISTLC(JARMY)=LISTLC(JARMY)-1
000110   00    C    NEXT 2 LINES ADDED TO FLAG > 1 CANDIDATE, OCT 78
000111   00         IRDV = 0
000112   00         ICNDV = 0
000113   00    C    NEXT LINE MODIFIED FOR 9 ARMY RESERVE DIVS, SEP 78
000114   00         DO 55 JJ=1,9
000115   00    C    NEXT LINE ADDED TO FLAG > 1 CANDIDATE, OCT 78
000116   00         IF(RPOOL(JJ,2,JARMY).EQ.0 .AND. RPOOL(JJ,1,JARMY).GT.0)IRDV = 1
000117   00    C    NEXT 2 LINES MODIFIED TO FLAG > 1 CANDIDATE, NOV 78
000118   00         IF(LISTPL(JJ,JARMY).EQ. ICND) ICNDV = 1
000119   00         IF(ICNDV.EQ.1 .AND. JJ.NE.9) LISTPL(JJ,JARMY)=LISTPL(JJ+1,JARMY)
000120   00     55  CONTINUE
000121   00    C    NEXT 3 LINES ADDED TO FLAG > 1 CANDIDATE, OCT 78
000122   00         IF(ICNDV .EQ. 1) LISTPL(9,JARMY) = 0
000123   00         IF(IRDV .EQ. 0) GO TO 1000
000124   00         IF(KOUNT.EQ.LISTLC(JARMY)) GO TO 1000
000125   00         IF(LISTLC(JARMY) .GT. 0) GO TO 15
000126   00    1000 CONTINUE
000127   00         RETURN
000128   00         END

END ELT.

WHDG.P  *****  FLEX/REDMOV  *****

@ELT,L 75PRINT1.FLEX/REDMOV
ELT007 S73R1A 02/27/79 14120:40 16,)
000001   02              COMPILER (XM=1)
000002   02    C    NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000003   02             SUBROUTINE FLEX(NARMY,ARMY,ISIDE,IPOOL,IPOOLC,CORPS)
000004   02    C    THIS SUBROUTINE SCANS ALL CORPS AND RECONSTITUTES TO THE ARMY RESERVE
000005   02    C     POOL ALL RESERVE DIVISIONS NOT TAGGED TO REINFORCE AN ON-LINE DIV.
000006   02    C
000007   02              INCLUDE PROC
000008   02             INCLUDE BTARMY
000009   02             INCLUDE BTCORP
000010   02    C
000011   02              COMMON/IWKDVS/IDEFSW, ARGIN, IPOLMX
000012   02    C    NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000013   02         DIMENSION ARMY(1),IPOOL(9,3,6),IPOOLC(1),CORPS(1)
000014   02    C
000015   06              COMMON/NPERD/NTCYC,NACYC
000016   02         COMMON/DCM/DCMATD(50,3),DCMATC,ATHRR,DTHRR,MNT,MNSTAT,ISUPLY,MXTDC
000017   06        *, INARCY
000018   02    C  DCMATC=COUNT OF RED DIVS CURRENTLY IN DCMATD FILE
000019   02    C  DCMATD(I,1)=INDEX OF WITHDRAWN DIVISION
000020   02    C  DCMATD(I,2)=INDEX OF PARENT ARMY
000021   02    C  DCMATD(I,3)=   0=RELEASE TO FRONT,GREATER THAN ZERO=ARMY CYCLES TO

*****  EXAMIN/REDMOV  *****
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000022  02  C                  YET EXPIRE BEFORE DIV IS RELEASABLE
000023  02  C  ATHRR=IF ANY RED DIV HAS A STATE LESS THAN THIS VALUE AND ITS CORPS
000024  02  C        MISSION IS ATTACK,IT WILL BE DECLARED AS DECIMATED AND WITH-
000025  02  C        -DRAWN IF TWO OR MORE ACTIVE DIVS REMAIN WITH CORPS.
000026  02  C  DTHRR=SAME AS ATHRR BUT FOR CORPS DEFEND/DELAY.
000027  02  C  MNT=MIN TIME A RED DIVISION MUST REMAIN IN DECIMATION FILE (ARMY CYC)
000028  02  C  MNSTAT=MIN STATE A RED DIV MUST ACHIEVE BEFORE BEING RECOMMITTED.
000029  02  C  ISUPLY=   0=ALL RED DIVISION COMPETE EQUALLY FOR LOGISTIC SUPPORT.
000030  02  C             1=ONLY DECIMATED DIVISIONS GET MEN AND EQUIPMENT
000031  02        INTEGER DCMATD,DCMATC
000032  02  C
000033  02  C     LOOK AT ALL CORPS!
000034  02              DO 1000 I=1,NARMY
000035  02              IF(IPOOLC(I) .EQ. IPOLMX) GO TO 1000
000036  02              CALL CINDEX(1,BTAREE,INDEX,LOVER)
000037  02              CALL PIK(ARMY(INDEX),LOVER+BSARNC,BLARNC,NCRPA)
000038  02              CALL PIK(ARMY(INDEX),LOVER+BSARRC,BLARRC,IRCRP)
000039  02              LOVER = LOVER +BSARC!
000040  02  C
000041  02              DO 900 J=1,NCRPA
000042  02              CALL PIK(ARMY(INDEX),LOVER,BLARC!,ICORP)
000043  02              CALL CINDEX(ICORP,BTCREE,INDEXC,LOVERC)
000044  02              CALL PIK(CORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,IRDIV)
000045  02            CALL PIK(CORPS(INDEXC),LOVERC+BSCRRT,BLCRRT,ICRRT)
000046  02  C     DOES CORPS HAVE AN UNCOMMITTED RESERVE?
000047  02              IF(IRDIV .EQ. 0 .OR. ICRRT.NE.0) GO TO 850
000048  02  C
000049  02  C      ISPT = 0
000050  02              CALL PAK(CORPS(INDEXC),LOVERC+BSCRSP,BLCRSP,0)
000051  02  C      KPOSN = 0
000052  02              CALL PAK(CORPS(INDEXC),LOVERC+BSCRPS,BLCRPS,0)
000053  02  C      NDIV = NDIV -1
000054  02            CALL PIK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000055  02            KDIV = NDIV -1
000056  02              CALL PAK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,KDIV)
000057  02            CALL PAK(CORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,0)
000058  02              LOVERC = LOVERC +BSCRD!
000059  02              DO 800 K=1,NDIV
000060  02            CALL PIK(CORPS(INDEXC),LOVERC,BLCRD!,IDIV)
000061  02            IF(K.NE. IRDIV) GO TO 790
000062  02  C           CALL PAK(CORPS(INDEXC),LOVERC,BLCRD!,0)
000063  04            WRITE(17, 7000) IDIV, J, I, ISIDE
000064  04   7000 FORMAT(' DIV ',I3,' OF CORPS ',I3,' OF ARMY ',I2,' SIDE',I2,
000065  04       .' RECONSTITUTED TO ARMY RES POOL'/)
000066  02              GO TO 825
000067  02  C
000068  02    790 LOVERC = LOVERC +BLCRD!
000069  02    800 CONTINUE
000070  02              GO TO 850
000071  02  C
000072  02    825 IF(ISIDE.EQ.2 .AND. ISUPLY.NE.0) GO TO 835
000073  05    826       ICNT = IPOOLC(I)
000074  05              DO 73 II=1,ICNT
000075  05              IF(IPOOL(II,2,I) .EQ. IDIV) IPOOL(II,2,I) = 0
000076  05     73 CONTINUE
000077  05            ICNT = ICNT +1
000078  05            IPOOLC(I) = ICNT
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000079  02            IPOOL(ICNT,1,I) = IDIV
000080  02              IPOOL(ICNT,2,I) = 0
000081  02              IPOOL(ICNT,3,I) = 0
000082  02              IF(IRDIV .EQ. NDIV) GO TO 840
000083  03       827    DO 830 II=IRDIV,KDIV
000084  02              CALL PIK(CORPS(INDEXC),LOVERC+BLCRD(),BLCRD(),IDIV)
000085  02              CALL PAK(CORPS(INDEXC),LOVERC,BLCRD(),IDIV)
000086  02              LOVERC = LOVERC +BLCRD(
000087  02       830 CONTINUE
000088  02              GO TO 840
000089  06       835 IF(DCMATC .GE. 50 .OR.NACYC.GT.INARCY) GO TO 826
000090  02       C     WITHDRAWN RED DIVISION MUST GO TO REBUILD POOL FOR RESUPPLY
000091  02       C      PRIOR TO ENTERING THE ARMY RESERVE POOL.
000092  02              DCMATC = DCMATC +1
000093  02       C     SET THE DIVISION INDEX
000094  02              DCMATD(DCMATC,1) = IDIV
000095  02       C     SET THE ARMY HDQ INDEX
000096  02              DCMATD(DCMATC,2) = I
000097  02       C     SET THE RELEASE DELAY TIME = 0
000098  02              DCMATD(DCMATC,3) = 0
000099  03              IF(IRDIV.NE.NDIV) GO TO 827
000100  02       C
000101  02       C     IS THE ARMY RESERVE POOL FULL?
000102  02       840 IF(IPOOLC(I) .EQ. IPOLMX) GO TO 1000
000103  02       850 LOVER = LOVER + BLARC(
000104  02       900 CONTINUE
000105  02       C
000106  02       C     GET NEXT ARMY.
000107  02       C
000108  02       1000 CONTINUE
000109  02       C
000110  02              RETURN
000111  02              END

END ELT.

$HOG,P  •••••• GETBV/HL ••••••

$ELT,L 75PRINT1.GETBV/HL
ELT007 S73RIA 02/27/79 14:20:41 (5,)
000001  01            COMPILER (XM = 1)
000002  01            SUBROUTINE GETBV (IDIVB,MINIKT)    #  FOR 13AUG6TASK/17SEP6
000003  01              INCLUDE PROC
000004  01       C
000005  01       C---------ROUTINE TO INITIALISE BLUE DIVISION DATA AREAS FOR ASSESSMENT
000006  01       C
000007  01            COMMON/ARTYSH/BINAFR,BGSSHR,RINAFR,RGSSHR
000008  01                COMMON/PRTSW/ IPRINT(2),IPP,MINIPL,MINIPH,JPP
000009  04       C     NEXT LINE ADDED FOR DETAIL PRINT TO TAPE, OCT 78
000010  04              COMMON/IOUNIT/IO1,IO2,IO6
000011  01            COMMON/AXDATA/BARTY(2,3),RARTY(2)
000012  03       C     NEXT 2 LINES ADDED FOR BORDER DIV, AUG 78
000013  03            COMMON/BORBDE/FRACBD(3,28)
000014  03            COMMON/BORDIV/INFORT(70)
000015  01            COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),

•••••• FLEX/REDMOV ••••••
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000073  01          GSTODS=BGSSHR*DIVMAX
000074  01           BARTY(2,I)=FLOAT(IGRB(I))*GSTODS
000075  01            ARTYB(I)=BARTY(1,I)+BARTY(2,I)
000076  01           DVMAXI=DVMAXI-BARTY(2,I)
000077  01     3000 CONTINUE
000078  01          QBDECT = IBDECT    @ 17SEP6
000079  01             DSACB=0.
000080  01             DSROLE=ARTYB(1)+ARTYB(2)+ARTYB(3)
000081  01             TBNU=DIVMAX*FLOAT(IQDS(1)+IQDS(2)+IQDS(3))
000082  01             IF(TBNU.GT.0.) DSACB=FLOAT(ACSQB)*DSROLE/TBNU
000083  04          IF(ZPQ)WRITE(106,84)IDIVB,NBNU,TBNU,DSROLE,GSNON,ACSQB,DSACB,IHSRB
000084  04       84 FORMAT(1HO,'GETBV--BDIV',I3,' ARTY BNS ASG =',I5,',TOT BNS=',F5.2,
000085  01         *'IN DS=',F6.2,',NONDIV GS=',F5.2,'. CAS SQDNS AVAL=',I5,',IN DS=',
000086  01         $ F5.2,' . RES BDE-',I2)
000087  01             CASTOT=0.
000088  01    CX         IF(DSACB.LT.0.01) GO TO 3900
000089  01                DO 3001 I=1,3
000090  01           ACB(I)=0.
000091  01           IF(DSROLE.LE.0.) GO TO 3001
000092  01     C     NEXT LINE ADDED FOR ALLOCATION TO BORDER BDES, AUG 78
000093  01           IF(INFORT(IDIVB).NE. 0) ARTYB(I) = DSROLE*FRACBD(1,IDIVB)
000094  01              ACB(I) = DSACB*ARTYB(I)/DSROLE
000095  01              CASTOT=CASTOT+ACB(I)
000096  01     3001 CONTINUE
000097  01     C APPORTION THE UNASGD GS ARTY AND CAS AVAILABLE AMONG ONLINE BDES
000098  01     C3900 RMCASB=RMCASB+ACSQB-CASTOT    @  17SEP6
000099  01      3900 RMCAS = FLOAT(ACSQB)- CASTOT @ UNASGD (GS) CAS SQDNS FOR DIV
000100  01           RMCASB = RMCASB + RMCAS
000101  01     CX    IF(RMCAS .LT. 0.001) GO TO 3950   @ DISREGARD IF VERY SMALL
000102  01              DO 3940 I = 1, 3
000103  01           ARTYMB(I) = DVMAXI / QBDECT
000104  01           CASMB(I) = RMCAS / QBDECT
000105  05           IF(ZPQ)WRITE(106,124)I,ARTYB(I),ARTYMB(I),ACB(I),CASMB(I),IDSB(I)
000106  01      124 FORMAT(7X,'BDE',I2,' DS ARTY BNS=',F5.2,', GS ARTY BNS=',F5.2,
000107  01         *', DS CAS SQDNS=',F5.2,',UNASGD CAS SQDNS=',F5.2,', ARTY AUG SW=',
000108  01         $ I2)
000109  01      3940 CONTINUE
000110  01     C3950 CONTINUE
000111  01     C     DO 4000 I=1,3
000112  01     C     ARTYMB(I)=DVMAXI/FLOAT(IBDECT)
000113  01     C4000  CONTINUE
000114  01     C
000115  01           RETURN
000116  01           END

END ELT.


@MDG,P  ******  HELOSS/RMAINT  ******


@ELT,L 75PRINT,HELOSS/RMAINT
ELT007 S73RIA 02/27/79 14:20:42 (0,)
000001  00           COMPILER (XM = 1)
000002  00           SUBROUTINE HELOSS(ISIDE)
000003  00             INCLUDE PROC
000004  00           COMMON/CASCOM/ TOTL(4,2),FRNT(2),WHOLE,IENT,IOPEN,VKIA,VWIA,
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000119  00  C                        **** WETZEL CHANGES **** 2 MAY 77
000120  00        IF(IS.EQ.1) REPARE(IR,JFL)=REPARE(IR,JFL)+WR+WRB
000121  00  C                END     **** WETZEL CHANGES **** 2 MAY 77
000122  00        CRLOS(28+J,1,IS)=CRLOS(28+J,1,IS)+WR
000123  00        CRLOS(28+J,2,IS)=CRLOS(28+J,2,IS)+WPNHIT-WR
000124  00        CRLOS(28+J,3,IS)=CRLOS(28+J,3,IS)+WRB
000125  00        CRLOS(28+J,4,IS)=CRLOS(28+J,4,IS)+BREAK-WRB
000126  00  C----------CREWOK IS CREW FROM BREAKDOWNS.  REASSIGN TO PERS POOL
000127  00        CREWOK=CREWOK + BREAK*WPNBUF(1,J,12)
000128  00        DEST=WPDEST+BRKDST
000129  00        REPS=WR+WRB
000130  00        LOSSES(28+J,ISIDE)=LOSSES(28+J,ISIDE)+DEST+REPS+WABAN
000131  00        REP=REPAIR(IR,IS)
000132  00  C     IF(IPP.EQ.0.OR.JPP.EQ.0) GO TO 96
000133  00  C     PRINT 7050,((IDAT(JL,3),JL=1,4),J,QUANT,WPNHIT,
000134  00  C    •    WPDEST,BREAK,WABAN,WR
000135  00  C7050 FORMAT(1X,4A4,I3,2(2X,F6.2),3X,F6.2,5X,F6.2,6X,F6.2,7X,F6.2,
000136  00  C    •      F10.3,F8.3,F10.4)
000137  00    96  CONTINUE
000138  00  C  PLACE REPAIRABLE WEAPONS IN SHOP
000139  00  C                        **** WETZEL CHANGES **** 2 MAY 77
000140  00  C     IF(IS.EQ.1) GO TO 200
000141  00  CC                END     **** WETZEL CHANGES **** 2 MAY 77
000142  00  C     IDL=EQPMNT(1,3,IS)+1
000143  00  C     IF (IDL.GT.20) IDL=20
000144  00  C     QUANTM=EQPMNT(5,3,IS)-SHOP(IDL,IR,IS)
000145  00  C     QUANT=AMIN1(QUANTM,REPAIR(IR,IS))
000146  00  C     SHOP(IDL,IR,IS)=SHOP(IDL,IR,IS)+QUANT
000147  00  C     REPAIR(IR,IS)=REPAIR(IR,IS)-QUANT
000148  00    200 CONTINUE
000149  00    500 CONTINUE
000150  00        RETURN
000151  00        END

END ELT.

@HDG,P  •••••• ICRDMD/HL  ••••••

@ELT,L 75PRINT1.ICRDMD/HL
ELT007 S73R1A 02/27/79 14:20:44 (0,)
000001  00        COMPILER(XM = 1)
000002  00        FUNCTION ICRDMD (ICORPS,CORPS,ISIDE,IARMY,NARMY)        @WK 275
000003  00          INCLUDE PROC
000004  00        DIMENSION CORPS(1)
000005  00  C
000006  00  C---------ROUTINE TO RETURN STATE DEFICIENCY OF ISIDE CORPS ICORPS
000007  00  C
000008  00        COMMON/BNTYPE/NBNTPB,NBNTPR
000009  00         INCLUDE BTBDE
000010  00         INCLUDE BTBDV
000011  00         INCLUDE BTCORP
000012  00         INCLUDE BTRDV
000013  00  C
000014  00  C           •••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000015  00  C
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000016  00  C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000017  00        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000018  00       *              RPOOL(9,3,6),RPOOLC(6)
000019  00  C     INTEGER RPOOLC,RPOOL      WCANCELLED (NOT NEEDED) AUG 78
000020  00        REAL MARGIN
000021  00  C
000022  00  C  IDEFSW = DEFENSE SWITCH
000023  00  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000024  00  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000025  00  C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=9)
000026  00  C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000027  00  C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000028  00  C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000029  00  C
000030  00  C  LISTPL(9,6)
000031  00  C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000032  00  C           9 = DIV INDEXES OF WEAK DIVS
000033  00  C           6 = PARENT ARMY HQ
000034  00  C  LISTLC(6)
000035  00  C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000036  00  C  RPOOL(9,3,6)
000037  00  C           LIST OF REPLACEMENT DIVS
000038  00  C           9 = DIV INDEXES
000039  00  C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000040  00  C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000041  00  C           6 = PARENT ARMY HQ
000042  00  C  RPOOLC(6)
000043  00  C           COUNT OF ARMY RESERVE DIVS
000044  00  C
000045  00        ICRDMD=0
000046  00        CALL CINDEX (ICORPS,BTCREE,INDEXC,LOVERC)
000047  00        CALL PIK (CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000048  00        LOVERC=LOVERC+BSCRDI
000049  00        ASSIGN 4001 TO LABEL
000050  00        IF (ISIDE.EQ.2) ASSIGN 4002 TO LABEL
000051  00  C
000052  00  C---------SUM SUBORDINATE DIVISION DEFICIENCIES
000053  00        DO 3000 I=1,NDIV
000054  00          CALL PIK (CORPS(INDEXC),LOVERC,BLCRDI,IDIV)
000055  00          LOVERC=LOVERC+BLCRDI
000056  00          GO TO LABEL
000057  00  C
000058  00  C---------BLUE DIVISION
000059  00   4001   CALL CINDEX (IDIV,BTBVTE,INDEXD,LOVERD)
000060  00  C
000061  00        IF(IDEFSW.GT.0.AND.NARMY.GT.0) CALL UPLST(IARMY,NARMY,IDIV) BWK 277
000062  00          LOVERD=LOVERD+BTBVEE
000063  00          CALL PIK (BDIV(INDEXD),LOVERD+BSBVHB,BLBVHB,IGBDE)
000064  00          DO 3001 J=1,3
000065  00            IF (J.EQ.IGBDE) GO TO 4000
000066  00            CALL PIK (BDIV(INDEXD),LOVERD+BSBDST,BLBDST,ISTATE)
000067  00            KNT=0
000068  00            LOVER=LOVERD+BSBDNB
000069  00            DO 3100 K=1,NBNTPB
000070  00              CALL PIK (BDIV(INDEXD),LOVER,BLBDNB,NB)
000071  00              KNT=KNT+NB
000072  00              LOVER=LOVER+BLBDNB
```

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000073  00   3100     CONTINUE
000074  00            ICRDMD=ICRDMD+KNT*(100-ISTATE)
000075  00   4000     LOVERD=LOVERD+BTBDEE
000076  00   3001   CONTINUE
000077  00            GO TO 3000
000078  00   C
000079  00   C---------RED DIVISION
000080  00    4002    CALL CINDEX (IDIV,BTHVEE,INDEXD,LOVERD)
000081  00            CALL PIK (RDIV(INDEXD),LOVERD+BSRVST,BLRVST,ISTATE)
000082  00            KNT=0
000083  00            LOVERD=LOVERD+BSRVNR
000084  00            DO 3002 J=1,NBNTPR
000085  00              CALL PIK (RDIV(INDEXD),LOVERD,BLRVNR,NB)
000086  00              KNT=KNT+NB
000087  00              LOVERD=LOVERD+BLRVNR
000088  00    3002    CONTINUE
000089  00            ICRDMD=ICRDMD+KNT*(100-ISTATE)
000090  00    3000 CONTINUE
000091  00   C
000092  00   C---------EXIT
00093   00         RETURN
000094  00         END

END ELT.

$HDG,P  •••••• INITAL/HL ••••••

$ELT,L 75PRINTI,INITAL/HL
ELT007 S73R1A 02/27/79 14:20:46 (0,1)
000001  00         COMPILER (XM = 1)
000002  00         SUBROUTINE INITAL
000003  00           INCLUDE PROC
000004  00   C
000005  00   C---------NON-INPUT STORAGE INITIALISATION CONTROL ROUTINE
000006  00   C
000007  00   C
000008  00            COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000009  00   C    NEXT 2 LINES ADDED FOR BORDER DIVS, SEP 78
000010  00   C    INFORT:  0 DENOTES NORMAL BLUE DIV; 1 A BORDER DIV ON LINE
000011  00              COMMON/BORDIV/INFORT(70)
000012  00            DATA INFORT/70*0/
000013  00            COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),
000014  00           •               NDIVGS(2),NASGRT(2)
000015  00            COMMON/GRABAX/POOLX(5,5,3),PEOPLX(10,3),DAVAIX(5,3),AVAILX(5,3)
000016  00   C
000017  00            COMMON/ARTFP/AVGSAR(4,2),ARTYFP(15,4,2),SARTB(8),SARTR(8),FRART(2)
000018  00            INTEGER SARTB,SARTR
000019  00            COMMON/AIRENV/KAIRSW(2)
000020  00            COMMON/BNIFPS/BBNIFP(50),BHLIFP(5),BAIFP,RBNIFP(50),RAIFP
000021  00            COMMON/BNSUM/IBNSUM(50)
000022  00            COMMON/BNTYPE/NBNTPB,NBNTPR
000023  00            COMMON/DINTLC/DINTB(3,5),DINTR(3,5),AVGDNT(4)
000024  00            COMMON/DIVMOV/ IDVWID(40,2),RATIDV(40,2),NUMDIV(2),DIVIFP(40),
000025  00           •              DPLIFP(40)
000026  00            COMMON/SUMARY/SLOSS(4,2),SAC(2),SCAS(2),SRUD(2),SADA(2),SAMEX(2),
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000027  00        *              SADEX(2),SSMEX(2)
000028  00         INTEGER SLOSS,SRVD
000029  00         DIMENSION BIFP(2,50),RIFP(2,50)
000030  00         EQUIVALENCE (BMNIFP,BIFP),(RMNIFP,RIFP)
000031  00    C
000032  00         COMMON/IWPNTP/NTNKS(2),NLARMR(2),NHELOS(2),NANTNK(2)
000033  00         COMMON/DAMAGD/HOSP(4),HOSPIN(20,4),REPAIR(30,2)
000034  00    C  20 THEATER CYCLES FOR MAX DELAY
000035  00    C  TANKS BY TYPE 1-12
000036  00    C  13-24 LIGHT ARMOR BY TYPE
000037  00    C  25-30 HELICOPTERS BY TYPE
000038  00    C
000039  00         COMMON/LOGF/ILOGF(7))
000040  00         COMMON/WETZEL/JFL,PSHOP(5,29,3),PCAP(3,3),PDELAY(3,3),REPARE(29,3)
000041  00         INTEGER PDELAY
000042  00         READ(3,END=2) PCAP
000043  00         GO TO 3
000044  00     2   RETURN 0
000045  00     3   CONTINUE
000046  00    C    NEXT 7 LINES ADDED TO SET INFORT, SEP 78
000047  00         DO 4800 I=1,NBDIV
000048  00         IENT = 3*(I -1) +1
000049  00         CALL CINDEX(IENT,BTSFEE,INDEX,LOVER)
000050  00         LOVER = LOVER +57*BTLGSF
000051  00         CALL PIK(ISFILE(INDEX),LOVER,BTLGSF,NI)
000052  00         IF(NI .GT. 0) INFORT(I) = 1
000053  00    4800 CONTINUE
000054  00    C  SHOP  20 THEATER CYCLES OF DELAY MAX   30 SEE DESCRIPTION  OF REPAIR
000055  00    C  ZERO ARRAYS
000056  00         DO 100 I=1,2
000057  00         DO 98 J=1,30
000058  00         DO 97 NI=1,20
000059  00         SHOP(NI,J,I)=0.0
000060  00    97   CONTINUE
000061  00         REPAIR(J,I)=0.0
000062  00    98   CONTINUE
000063  00         DO 55 K=1,54
000064  00         DAVAIL(K,I)=0.0
000065  00         AVAIL(K,I)=0.0
000066  00    55   CONTINUE
000067  00         DO 56 K=1,5
000068  00         XGAINX(K,3)=0.
000069  00         XGAINX(K,1)=0.
000070  00         CRLOX(K,1,1)=0.
000071  00         CRLOX(K,2,1)=0.
000072  00         CRLOX(K,3,1)=0.
000073  00         CRLOX(K,4,1)=0.
000074  00         CRLOX(K,1,3)=0.
000075  00         CRLOX(K,2,3)=0.
000076  00         CRLOX(K,3,3)=0.
000077  00         CRLOX(K,4,3)=0.
000078  00         DAVAIX(K,1)=0.
000079  00         AVAILX(K,1)=0.
000080  00         AVAILX(K,3)=0.
000081  00         DAVAIX(K,3)=0.
000082  00     56   CONTINUE
000083  00         DO 60 J=1,10
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000009      00   C                                                                  A79   46
000010      00   C ARTY DATA  (ARTSTA(4,450),ARTBNT(14,15,2),CANNON(46,8,2) IN BDEDIV)  A79   47
000011      00        COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),       A79   48
000012      00       *                NDIVGS(2),NASGRT(2)                            A79   49
000013      00   C  ARTSTA=ARTILLERY STATUS FILE                                     A79   50
000014      00   C  IARTYP=QUANTITY OF TYPES OF ARTY BNS                             A79   51
000015      00   C  ARTBNT=ARTY BN TYPE DESCRIPTIONS                                 A79   52
000016      00   C  CANNON=ARTY TUBE TYPE DESCRIPTIONS                               A79   53
000017      00   C  ALNGS=NONDIV GS ARTY STATUS FILE                                 A79   54
000018      00   C  NARTUB=QUANTITY OF ARTY TUBE TYPES                               A79   55
000019      00   C  NONDIV=QUANTITY OF NON DIV BNS + REINFORCING ARTY BNS            A79   56
000020      00   C  NDIVGS=QUANTITY OF NON DIV ARTY BNS IN THEATER                   A79   57
000021      00   C  NASGRT=QUANTITY OF DIV AND BDE ARTY BNS                          A79   58
000022      00   C                                                                   A79   59
000023      00        COMMON/ARTFP/AVGSAR(4,2),ARTYFP(15,4,2),SARTB(8),SARTR(8),FRART(2)A79   60
000024      00        INTEGER SARTB,SARTR                                            A79   61
000025      00   C  SARTB,SARTR=SUM OF NON DIV GS ARTY BN BY BN TYPE                 A79   62
000026      00   C  AVGSAR=AVERAGE ME IFP (SUM AT ALA AP) FOR NON DIV GS ARTY (AVG BN)  A79   63
000027      00   C   ARTYFP=ME IFP FOR EACH ARTY BN TYPE FOR AT ALA AP BY SIDE       A79   64
000028      00   C  ARTYFP(BN TYPE,4,SIDE.*=SUM AT+ALA+AP IFP FOR ME                 A79   65
000029      00   C  FRART=AVERAGE INCREASED FIRE RATE FOR ALL TUBE TYPES             A79   66
000030      00        COMMON/BNIFPS/BBNIFP(50),BMLIFP(5),BAIFP,RBNIFP(50),RAIFP
000031      00        COMMON/BNSUM/IBNSUM(50)
000032      00        COMMON/BNTYPE/NBNTPB,NBNTPR
000033      00         INCLUDE BTBDE
000034      00         INCLUDE BTBDV
000035      00        COMMON/DIVMOV/ IDVWID(90,2),RATIDV(90,2),NUMDIV(2),DIVIFP(90),
000036      00       *DPCIFP(90)          BDIVMOVE,RATIDIV SHORTENED 2AUG73DOC
000037      00   C  BIGHEL IS AVERAGE HELICOPTER 3X5 IFP USED BY RED IN ESTIMATION
000038      00   C  BLUE DIV =1-50  HELIFP
000039      00   C  BLUE CORPS =51-110  HELIFP
000040      00        COMMON/INTMSN/INMSNB,INMSNR
000041      00   C    NEXT LINE ADDED TO ACCOUNT BUNKERS BY MINISCTR, DEC 78
000042      00        COMMON/BUNKER/TANK1(600),TANK6(600)
000043      00        COMMON/IWPNTP/NTNKS(2),NLARMR(2),NHELOS(2),NANTNK(2)
000044      00        COMMON/DTHRSH/DTHAB,DTHDB,DTHAR,DTHDR
000045      00        INTEGER DTHAB,DTHDB,DTHAR,DTHDR
000046      00        DIMENSION DMIFP(3),CMIFP(3),DMIFPX(3)     BOCT 75 CAA
000047      00   C
000048      00   C---------ZERO DIVISION TOTALS ARRAY
000049      00        DO 3600 I=2,3
000050      00          DMIFP(I)=0.
000051      00          DMIFPX(I)=0.                                  BOCT 75 CAA
000052      00    3600 CONTINUE
000053      00   C
000054      00   C---------GET ORGANIC/NON-ORGANIC DIVISION HELICOPTER IFPS
000055      00        IF (NHELIB.EQ.0) GO TO 2200
000056      00        DVHLFP=0.
000057      00        DO 3200 I=1,NHELIB
000058      00        DVHLFP=DVHLFP+DVHELI(I,IDIV)*BMIFP(IDIV)
000059      00    3200 CONTINUE
000060      00        IF (IRSW.NE.0) GO TO 2201
000061      00        SUM=0.
000062      00        DO 3201 I=1,NHELIB
000063      00        SUM=SUM+CRHELI(I,ICORPS)*BMIFP(ICORPS+70)
000064      00    3201 CONTINUE
000065      00        DVHLFP=DVHLFP+SUM*(1./FLOAT(NADIV))
```

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000066   00    2201 DO 3202 I=2,3
000067   00           DMIFP(I)=DVHLFP
000068   00    3202 CONTINUE
000069   00    C
000070   00    C---------GET DIVISION DATA
000071   00    2200 CALL CINDEX (IDIV,BTBVTE,INDEXD,LOVERD)
000072   00         CALL PIK (BDIV(INDEXD),LOVERD+BSBVNB,BLBVNB,IRBDE)
000073   00         CALL PIK (BDIV(INDEXD),LOVERD+BSBVDS,BLBVDS,NARTY)
000074   00         CALL PIK (BDIV(INDEXD),LOVERD+BSBVDG,BLBVDG,NBN)
000075   00    C  COMPUTE DIVISIONAL ARTY IFP
000076   00         IARTY=NBN                    @ARTY79  113
000077   00         DAIFP=0                      @ARTY79  114
000078   00         IF(IARTY.LT.1) GO TO 600     @ARTY79  115
000079   00    C  COMPUTE IFP SUM AT ALA AP OF 1ST GS ARTY BN
000080   00         IF (NARTY.LT.1) GO TO 600    @ DEC 75
000081   00         IGS1=ARTSTA(19,NARTY)        @ARTY79  117
000082   00         DAIFP=ARTYFP(IGS1,9,1)*FLOAT(NBN)    @ARTY79  118
000083   00     600 CALL PIK(BDIV(INDEXD),LOVERD+BSBVLM,BLBVLM,ISTRT)   @ARTY79  119
000084   00         CALL PIK (BDIV(INDEXD),LOVERD+BSBVMM,BLBVMM,ISTOP)
000085   00         IWDTHD=ISTOP-ISTRT+1
000086   00    C
000087   00    C---------GET SUBORDINATE BRIGADE DATA
000088   00    2000 LOVERD=LOVERD+BTBVEE
000089   00         DO 3000 I=1,3
000090   00         MOW=0.
000091   00           IRBSW=0
000092   00           IF (I.EQ.IRBDE) IRBSW=1
000093   00           IRBSW=MAXO (IRSW,IRBSW)
000094   00           RIFP=0.
000095   00           LOVER=LOVERD+BSBDNB
000096   00           DO 3001 J=1,NBNTPB
000097   00             CALL PIK (BDIV(INDEXD),LOVER,BLBDNB,NBN)
000098   00             IBNSUM(J)=IBNSUM(J)+NBN
000099   00             LOVER=LOVER+BLBDNB
000100   00             RIFP=RIFP+FLOAT(NBN)*BBNIFP(J)
000101   00    3001   CONTINUE
000102   00           CALL PIK (BDIV(INDEXD),LOVERD+BSBDST,BLBDST,ISTATE)
000103   00           IF (ISTATE.GE.DTHAB) DMIFP(3)=DMIFP(3)+RIFP
000104   00           IF (ISTATE.GE.DTHDB) DMIFP(2)=DMIFP(2)+RIFP
000105   00    C  ADD BDE DS TO DAIFP                    @ARTY79  122
000106   00         CALL PIK(BDIV(INDEXD),LOVERD+BSBDQD,BLBDQD,IQDS) @ARTY79  123
000107   00         IDSART=0                           @ARTY79  124
000108   00         IF(IQDS.LT.1) GO TO 2500           @ARTY79  125
000109   00         IDSART=1                           @ARTY79  126
000110   00    C  ADD BDE DS ARTY TO DIV ARTY          @ARTY79  127
000111   00    C      IARTY=IARTY+1                    @ARTY79  128
000112   00    C       ********* REMOVED OCT 75 CAA **************
000113   00         IDSTYP=ARTSTA(19,IQDS)             @ARTY79  129
000114   00         DAIFP=DAIFP+ARTYFP(IDSTYP,9,1)     @ARTY79  130
000115   00         MOW=ARTYFP(IDSTYP,9,1)                 @ARTINTEL
000116   00    2500 IF(IRBSW.NE.0) GO TO 2100          @ARTY79  133
000117   00           CALL PIK (BDIV(INDEXD),LOVERD+BSBDLM,BLBDLM,ISTRT)
000118   00           CALL PIK (BDIV(INDEXD),LOVERD+BSBDMM,BLBDMM,ISTOP)
000119   00           IWDTHB=ISTOP-ISTRT+1
000120   00           CALL PIK (BDIV(INDEXD),LOVERD+BSBDNO,BLBDNO,IBDE)
000121   00    C    NEXT 10 LINES ADDED TO ACCOUNT BUNKERS BY MINISCTR, DEC 78
000122   00         CALL CINDEX(IBDE,BTSFEE,INDEXS,LOVERS)
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000123   00          LOVERS = LOVERS +58*BTLGSF
000124   00          CALL PIK(ISFILE(INDEXS),LOVERS,BTLGSF,NT1)
000125   00          TNK1 = AMAXO(NT1,0)*0.001/IWDTHB
000126   00          LOVERS = LOVERS +10*BTLGSF
000127   00          CALL PIK(ISFILE(INDEXS),LOVERS,BTLGSF,NT6)
000128   00          TNK6 = AMAXO(NT6,0)*0.001/IWDTHB
000129   00          DO 135 MN=ISTRT,ISTOP
000130   00          TANK1(MN) = TNK1
000131   00      135 TANK6(MN) = TNK6
000132   00          CALL DBSET(INMSNB,ISTATE,IDSART,MYINT(HOW),IWDTHB,IBDE,1) @ARTINTEL
000133   00     2100  LOVERD=LOVERD+BTBDEE
000134   00     3000 CONTINUE
000135   00     C
000136   00          DO 3100 I=2,3
000137   00            CMIFP(I)=CMIFP(I)+DMIFP(I)+DAIFP
000138   00            DMIFPX(I)=DMIFPX(I)+DMIFP(I)*DAIFP      @OCT 75 CAA
000139   00     3100 CONTINUE
000140   00          IF (IRSW.NE.0) GO TO 9999
000141   00          IARTY=FLOAT(IARTY)*10.0                    @ARTY74  135
000142   00     C    CALL CDSET(IWDTHD,DMIFP,IARTY,IDIV,1)      @ARTY74  136
000143   00     C    CALL CDSET(IWDTHD,DMIFPX,IARTY,IDIV,1)      @OCT 75 CAA
000144   00     C
000145   00     C      ** ABOVE IS INCORRECT BECAUSE 'IARTY' IS SUPPOSED TO BE
000146   00     C         THE NUMBER OF NON-DIV GS ARTY BNS ASSIGNED TO THIS
000147   00     C         DIVISION BY CORPS.  AS CODED, 'IARTY' IS THE SUM OF
000148   00     C         DIV GS + DIV DS.  IN FACT, NON-DIV GS HAS NOT YET BEEN
000149   00     C         ASSIGNED TO THE DIVISION.
000150   00     C
000151   00          CALL CDSET(IWDTHD,DMIFPX, 0   ,IDIV,1)      @NOV 75 CAA
000152   00     C       MUST CHG TO DMIFPX FOR CORRECT IFP
000153   00     C
000154   00     C----------EXIT
000155   00      9999 RETURN
000156   00          END

END ELT.

@HDG,P  •••••• KIDNAP/FEBM ••••••

@ELT,L 75PRINT1,KIDNAP/FEBM
ELT007 S7JRIA 02/27/79 14120:49 (4,)
000001   00          COMPILER (XM=1)
000002   00          SUBROUTINE KIDNAP
000003   00            INCLUDE PROC
000004   00     C  WITH DRAW AND REPLACE WEAK DIV(S)
000005   00     C  THIS SUBROUTINE CHECKS ARMY RESERVE POOL FOR COMMITTMENT
000006   00     C  (REPLACEMENT OF WEAK ONLINE DIV BY STRONGER ARMY RESERVE
000007   00     C  PLAN
000008   00     C
000009   00     C
000010   00     C    NEXT 5 LINES ADDED FOR BORDER DIVS, OCT 78
000011   00          COMMON/IWPNTP/NTNKS(2)
000012   00          COMMON/BIGLOS/OSSES(45,4)
000013   00          INTEGER BTFEBA,BTFEBM
000014   00          COMMON/BORDIV/INFORT(70)
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000015  00        DIMENSION MFEB(31)
000016  00  C           ************ WEAK ON-LINE DIVISION DATA ************
000017  00  C
000018  00  C    NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000019  00        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000020  00       *              RPOOL(9,3,6),RPOOLC(6)
000021  00        INTEGER RPOOLC
000022  00          INTEGER RPOOL
000023  00        REAL MARGIN
000024  00  C
000025  00  C  IDEFSW = DEFENSE SWITCH
000026  00  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000027  00  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000028  00  C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000029  00  C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000030  00  C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000031  00  C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000032  00  C
000033  00  C  LISTPL(9,6)
000034  00  C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000035  00  C           9 = DIV INDEXES OF WEAK DIVS
000036  00  C           6 = PARENT ARMY HQ
000037  00  C  LISTLC(6)
000038  00  C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000039  00  C  RPOOL(9,3,6)
000040  00  C           LIST OF REPLACEMENT DIVS
000041  00  C           9 = DIV INDEXES
000042  00  C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000043  00  C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000044  00  C           6 = PARENT ARMY HQ
000045  00  C  RPOOLC(6)
000046  00  C           COUNT OF ARMY RESERVE DIVS
000047  00  C
000048  00          INCLUDE BTBDE
000049  00         COMMON/BARM/NBARMY,BARMY(8)
000050  00          INCLUDE BTARMY
000051  00          INCLUDE BTCORP
000052  00          INCLUDE BTBDV
000053  00          COMMON/BCORP/NBCORP,BCORPS(49)
000054  00  C
000055  00  C
000056  00  C  DO WE HAVE AN ARMY RESERVE DIV WITH A REPLACEMENT PLAN AND WHOSES
000057  00  C  DELAY HAS EXPIRED.............
000058  00  C
000059  00  C
000060  00          DO 1000 I=1,NBARMY
000061  00  C         IF(RPOOLC(I).LE.0) WRITE(17,33) I
000062  00  C33     FORMAT(10X,'*KIDNAP* ARMY',I2,' HAS NO RESERVE DIVS. (BYPASS)')
000063  01        63 IF (RPOOLC(I).LE.0) GO TO 1000
000064  01           ICNT=RPOOLC(I)
000065  00  C      NEXT LINE MODIFIED FOR 9 ARMY RESERVE DIVS, OCT 78
000066  00           IF(ICNT.GT.9) RETURN 0
000067  00           DO 900 J=1,ICNT
000068  00  C        IF (RPOOL(J,2,I).LE.0) WRITE(17,34)I,J
000069  00  C34     FORMAT(20X,'KIDNAP ARMY',I2,' RESERVE DIV',I2,' HAS NO'
000070  00  C       * ' COMMITMENT PLAN')
000071  00           IF(RPOOL(J,1,I).LE.0) RETURN 0
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000072  00          IF (RPOOL(J,2,I).LE.0) GO TO 900
000073  00    C     WRITE(17,35) J,RPOOL(J,2,I),RPOOL(J,3,I)
000074  00    C35   FORMAT(20X,'RESERVE DIV',I2,' HAS COMMITMENT PLAN',
000075  00    C    .' TO REPLACE DIV',I3,' AFTER DELAY',I2,' MINUS 1')
000076  00          RPOOL(J,3,I)=MAXO(0,(RPOOL(J,3,I)-1))
000077  00          IF (RPOOL(J,3,I).GT.0) GO TO 900
000078  00    C     WE HAVE A REPLACEMENT PLAN TO BE IMPLEMENTED NOW.
000079  00    C     WRITE(17,36) RPOOL(J,1,I),RPOOL(J,2,I)
000080  00    C36   FORMAT(20X,'RESERVE DIV',I2,' HAS COMMITMENT PLAN',
000081  00    C    .' TO REPLACE DIV',I3,' RIGHT NOW')
000082  00          NEWDIV=RPOOL(J,1,I)
000083  00          CALL CINDEX(1,BTAREE,INDEX,LOVER)
000084  00          CALL PIK(BARMY(INDEX),LOVER+BSARNC,BLARNC,NCRP)
000085  00          LOVER=LOVER+BSARC1
000086  00          DO 800 K=1,NCRP
000087  00          CALL PIK(BARMY(INDEX),LOVER,BLARC1,ICORPS)
000088  00          LOVER=LOVER+BLARC1
000089  00          CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)
000090  00          CALL PIK(BCORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000091  00          CALL PIK(BCORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,IRDIV)
000092  04    C     NEXT 3 LINES CORRECTED, JAN 79
000093  04          IF(IRDIV .EQ. 0) GO TO 11
000094  00          IWEAK=RPOOL(J,2,I)                          @CAA JAN 75
000095  02          NEWBIT=BSCRD1+(IRDIV-1)*BLCRD1
000096  02          CALL PIK(BCORPS(INDEXC),LOVERC+NEWBIT,BLCRD1,IRDIV)
000097  00          IF (IRDIV.NE.IWEAK) GO TO 11                @CAA JAN 75
000098  00    C  REPLACE RESERVE DIV W/REPLACEMENT DIV
000099  00          WRITE(17,111) I,K,IWEAK,NEWDIV
000100  00     111  FORMAT(' KIDNAP REPLACING ARMY',I2,'CORPS',I3,' RESERVE DIV',I3,
000101  00         .  ' WITH ARMY RESERVE DIV (',I2,')')
000102  00          CALL PAK(BCORPS(INDEXC),LOVERC+NEWBIT,BLCRD1,NEWDIV)
000103  00          RPOOL(J,1,I)=RPOOL(J,2,I)
000104  00          RPOOL(J,2,I)=0
000105  00    C       ** BELOW ADDED 21 APR 77 **
000106  00          DO 88 JJ=1,IPOLMX
000107  00          IF(IWEAK.NE.LISTPL(JJ,I)) GO TO 88
000108  00          LISTPL(JJ,I)=0
000109  00     88   CONTINUE
000110  00    C     WRITE(17,177) LISTLC(I),(LISTPL(JJ,I),JJ=1,9)
000111  00    C177  FORMAT(25X,'LISTLC=',I2,' LISTPL=',9I4)
000112  00          GO TO 900
000113  00     11   LOVERD=LOVERC+BSCRD1
000114  00          DO 700 L=1,NDIV
000115  00          CALL PIK(BCORPS(INDEXC),LOVERD,BLCRD1,IDIV)
000116  00          LOVERD=LOVERD+BLCRD1
000117  00    C  IS THIS ONLINE DIV
000118  00          ISAME=IABS(IDIV-RPOOL(J,2,I))
000119  00          IF (ISAME.GT.0) GO TO 700
000120  00    C  YES, REPLACE WITH RPOOL(J,1,I) DIV
000121  00    C
000122  00    C  REPLACE DIV INDEX IN PARENT CORPS DATA ARRAY
000123  00    C   REPLACEMENT DIV GETS ONLINE DIV CAS,NON DIV GS AND CORPS AIR CAV
000124  00    C
000125  00          CALL PAK(BCORPS(INDEXC),LOVERD-BLCRD1,BLCRD1,NEWDIV)
000126  00    C  PUT WEAK DIV IN ARMY RES POOL
000127  00          RPOOL(J,1,I)=IDIV
000128  00          RPOOL(J,2,I)=0
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```
000129      00   C      •• BELOW ADDED 21 APR 77 ••
000130      00          DO 188 JJ=1,IPOLMX
000131      00          IF(IWEAK•NE•LISTPL(JJ,I)) GO TO 188
000132      00          LISTPL(JJ,I)=0
000133      00    188   CONTINUE
000134      00   C      WRITE(17,177) LISTLC(I),(LISTPL(JJ,I),JJ=1,4)
000135      00          CALL CINDEX(IDIV,BTBYTE,INDEXB,LOVERB)
000136      00          WRITE(17,12) I,K,IDIV,NEWDIV
000137      00     12   FORMAT(' KIDNAP REPLACING ARMY',I2,' CORPS',I3,' WOLD',I3,
000138      00         •  ' WITH ARMY RESERVE DIV (',I2,')')
000139      00          CALL PIK(BDIV(INDEXB),LOVERB+BSBVLM,BLBVLM,MINLD)
000140      00          CALL PIK(BDIV(INDEXB),LOVERB+BSBVMM,BLBVMM,MINMO)
000141      00          CALL PIK(BDIV(INDEXB),LOVERB+BSBVMP,BLBVMP,IBMPCT)
000142      00          CALL PIK(BDIV(INDEXB),LOVERB+BSBVGS,BLBVGS,IGSBNB)
000143      00          CALL PIK(BDIV(INDEXB),LOVERB+BSBVAC,BLBVAC,ICAS)
000144      00   C     NEXT 40 LINES ADDED FOR BORDER DIVS, NOV 78
000145      00          IF(INFORT(IDIV),EQ. 0) GO TO 199
000146      00   C     NEXT 3 LINES ADDED TO MOVE BORDER DIV ARTY TO GS, NOV 78
000147      00          CALL PIK(BDIV(INDEXB),LOVERB+BSBVDS,BLBVDS,IDSBV)
000148      00          CALL ARMART(IDSBV)
000149      00          LOVRBB = LOVERB +BTBVEE +BSBDQD
000150      00          KBORD = RPOOLC(I) -1
000151      00          JDIVB = J
000152      00          DO 137 JBORD=JDIVB,KBORD
000153      00          DO 137 IBORD=1,3
000154      00          RPOOL(JBORD,IBORD,I) = RPOOL(JBORD+1,IBORD,I)
000155      00    137   CONTINUE
000156      00          JBORD = KBORD +1
000157      00          RPOOL(JBORD,1,I) = 0
000158      00          RPOOL(JBORD,2,I) = 0
000159      00          RPOOLC(I) = RPOOLC(I) -1
000160      00          JDIVB = (IDIV -1)•3
000161      00          CREWS = 0.
000162      00          DO 71 KBORD=1,3
000163      00   C     NEXT 3 LINES ADDED TO MOVE BORDER DIV ARTY TO GS, NOV 78
000164      00          CALL PIK(BDIV(INDEXB),LOVRBB,BLBDQD,IDSBV)
000165      00          CALL ARMART(IDSBV)
000166      00          LOVRBB = LOVRBB +BTBDEL
000167      00          JBDEB = JDIVB +KBORD
000168      00          CALL UPSTFL(JBDEB,1)
000169      00          N = 4
000170      00          INDEX = 58
000171      00          ITET = NTNKS(I)
000172      00          JBORD = 0
000173      00          DO 162 IBORD=1,23,2
000174      00          JBORD = JBORD +1
000175      00          IF(ITET •LT. JBORD) GO TO 172
000176      00          QUANT = STAFIL(INDEX+IBORD,1)
000177      00          STAFIL(INDEX+IBORD,1) = 0.
000178      00          CRLOS(N+JBORD, 2, I) = CRLOS(N+JBORD, 2, I) +QUANT
000179      00          OSSES(N+JBORD,1) = OSSES(N+JBORD,1) +QUANT
000180      00          CREWS = CREWS +QUANT•WPNBUF (I,JBORD,1)
000181      00    162   CONTINUE
000182      00    172   CREWS = CREWS +STAFIL(2,1)
000183      00          STAFIL(2,1) = 0.
000184      00          CALL PKSTFL(JBDEB,1)
000185      00     71   CONTINUE
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000186  00        DAVAIL(I,1) = DAVAIL(I,1) +CREWS
000187  00        CALL CINDEX(MINLD,BTFEBA,INDEXF,LOVERF)
000188  00        IFEBCH = (-1-INFORT(IDIV))/(MINHD -MINLD +1)
000189  00        JBORD = 0
000190  00        KBORD = (FMBIAS-IFEBCH*OMEGA)*FMSCAL+0.5
000191  00        CALL CINDEX(MINLD,BTFEBM,INDXM,LOVRM)
000192  00        MFBIAS = FMBIAS*FMSCAL +0.5
000193  00        DO 148 MI=MINLD,MINHD
000194  00        CALL PIK(FEBA(INDEXF),LOVERF,BTFEBA,NOWFBA)
000195  00        CALL PIK(FEBM(INDXM),LOVRM,BTFEBM,IFEBM)
000196  00        JBORD = JBORD +1
000197  00        MFEB(JBORD) = IFEBM -MFBIAS
000198  00        CALL PAK(FEBM(INDXM),LOVRM,BTFEBM,KBORD)
000199  00        LOVRM = LOVRM +BTFEBM
000200  03  C     NEWFBA = NOWFBA -IFEBCH
000201  03        NEWFBA = NOWFBA -MFEB(JBORD)
000202  00        CALL PAK(FEBA(INDEXF),LOVERF,BTFEBA,NEWFBA)
000203  00        LOVERF = LOVERF +BTFEBA
000204  00      148 CONTINUE
000205  00        WRITE(17,201) IDIV, INFORT(IDIV),IFEBCH,(MFEB(MI),MI=1,JBORD)
000206  00      201 FORMAT('0BORDER DIV',I3,' FEBA MOVEMT - ACTUAL:',I4,I4,
000207  00         * ', NOTIONAL:'/7X,31I4)
000208  00          INFORT(IDIV)= -2
000209  00    C  SET NEW DIV AND BDES
000210  00      149 CALL CINDEX(NEWDIV,BTBVTE,INDXN,LOVRN)
000211  00        CALL PIK(BDIV(INDXN),LOVRN+BSBVHB,BLBVHB,IGBDE)
000212  00        IBDECT=3
000213  00        IF (IGBDE.NE.0) IBDECT=2
000214  00        IF ((MINHD-MINLD+1).LT.3) GO TO 10000
000215  00        IFRNT=(FLOAT(MINHD)-FLOAT(MINLD)+1)/FLOAT(IBDECT)
000216  00        CALL PAK(BDIV(INDXN),LOVRN+BSBVLM,BLBVLM,MINLD)
000217  00        CALL PAK(BDIV(INDXN),LOVRN+BSBVHM,BLBVHM,MINHD)
000218  00        CALL PAK(BDIV(INDXN),LOVRN+BSBVHP,BLBVHP,IBHPCT)
000219  00        CALL PAK(BDIV(INDXN),LOVRN+BSBVGS,BLBVGS,IGSBNB)
000220  00        CALL PAK(BDIV(INDXN),LOVRN+BSBVAC,BLBVAC,ICAS)
000221  00    C **** BELOW INSERTED 21 APRIL 77 ****
000222  00        IF(IGBDE.EQ.0) CALL PAK(BDIV(INDXN),LOVRN+BSBVRB,BLBVRB,0)
000223  00    C  SET BDES NEW FRONTAGE
000224  00        MINL=MINLD
000225  00        MINH=MINLD+IFRNT-1
000226  00        LOVRN=LOVRN+BTBVEE
000227  00        DO 500 M=1,3
000228  00        IF (M.EQ.IGBDE) GO TO 400
000229  00        IF (M.GE.IBDECT.AND.MINH.LT.MINHD) MINH=MINHD
000230  00        IF(MINL.LE.MINH)GO TO 38
000231  00        PRINT 37,IDIV,NEWDIV,M,MINL,MINH
000232  00     37   FORMAT(1H0,10X,'KIDNAP REPLACING DIV',I3,' WITH DIV',I3,/,
000233  00         * 20X,'BRIGADE',I2,' MINISECTOR BOUNDS=',2I5,', RUN ABORTING')
000234  00        RETURN 0
000235  00     38   CONTINUE
000236  00        CALL PAK(BDIV(INDXN),LOVRN+BSBDLM,BLBDLM,MINL)
000237  00        CALL PAK(BDIV(INDXN),LOVRN+BSBDHM,BLBDHM,MINH)
000238  00        MINL=MINH+1
000239  00        MINH=MINL+IFRNT-1
000240  00    400   LOVRN=LOVRN+BTBDEE
000241  00    500   CONTINUE
000242  00    C     NEXT LINE MODIFIED TO REMOVE DIV FROM POOL, NOV 78
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000243  00          GO TO 63
000244  00    C
000245  00    700   CONTINUE
000246  00    C
000247  00    800    CONTINUE
000248  00    C
000249  00    900   CONTINUE
000250  00    C
000251  00    1000  CONTINUE
000252  00    C
000253  00          RETURN
000254  00    10000 WRITE(6,1200) IDIV,MINLD,MINHD,IBDECT
000255  00    1200  FORMAT (1H ,49HREPLACEMENT CANNOT TAKE PLACE  FRONTAGE TOO SMALL,/
000256  00         *1H ,5HIDIV=,I5,2X,12HMINLD MINHD=,2I5,2X,10HBDE COUNT=,I2,10X,11HR
000257  00         *UN ABORTED)
000258  00          STOP 61
000259  00          END

END ELT.

@MDG,P  •••••• PHASER/PHASE ••••••

@ELT,L 75PRINT1.PHASER/PHASE
ELT007 573R1A 02/27/79 14121:01 (0,)
000001  00            COMPILER(XM=1)
000002  00            SUBROUTINE PHASER(ILOW,IHIGH,ISIDE,LNUM,IDIST)
000003  00    C
000004  00    C
000005  00    C THIS SUBROUTINE RETURNS THE DISTANCE FROM THE FEBA (CLOSEST POINT)
000006  00    C TO EITHER THE CLOSEST PHASE LINE OR SPECIFIED (LNUM) PHASE LINE.
000007  00    C
000008  00    C IF PHASE LINE(LNUM) IS NOT SPECIFIED, THE NUMBER OF THE CLOSEST
000009  00    C PHASE LINE AND DISTANCE TO IT IS RETURNED.
000010  00    C
000011  00    C
000012  00            INCLUDE PROC
000013  00            M=1
000014  00            N=3
000015  00            IF(LNUM.EQ.0)GO TO 25
000016  00            M=LNUM
000017  00            N=LNUM
000018  00    25      IDIST=1000000
000019  00            CALL CINDEX(ILOW,BTFEBA,INDEX,LOVER)
000020  00            DO 100 J=ILOW,IHIGH
000021  00            CALL PIK(FEBA(INDEX),LOVE,BTFEBA,IFEB)
000022  00    C
000023  00            DO 50 I=M,N
000024  00            IF(J.LT.LNPHSE(1,I,ISIDE).OR.J.GT.LNPHSE(2,I,ISIDE))GO TO 50
000025  00           JDIST=IABS(LNPHSE(3,I,ISIDE)-IFEB)
000026  00             IF(IDIST.LE.JDIST)GO TO 50
000027  00             IDIST=JDIST
000028  00             LNUM=I
000029  00    50       CONTINUE
000030  00             LOVER=LOVER+BTFEBA
000031  00    100      CONTINUE
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000032        00                RETURN
000033        00                END

END ELT.

@HDG,P ****** PIKBV/ENDPNT ******

@ELT,L 7SPRINT1.PIKBV/ENDPNT
ELTQU7 S73RIA 02/27/79 14:21:03 (2,)
000001        00          COMPILER (XM = 1)
000002        00          SUBROUTINE PIKBV (INDIV,IRQST)
000003        00            INCLUDE PROC
000004        00    C
000005        00    C----------ROUTINE TO UNPACK BRIGADE/DIVISION DATA
000006        00    C
000007        00          COMMON/BNTYPE/NBNTPB,NBNTPR
000008        00           INCLUDE BTBDE
000009        00           INCLUDE BTBDV
000010        00          COMMON/BVDATA/MINBV(2),DSABNB,DGABNB,GSABNB,ACSQB,IRSRB,ISTB(3),
000011        00         .              IBDE(3),MINB(2,3),MANBNB(50,3),MSNB(3),IDRB(3),
000012        00         .              IGRB(3),IDSB(3),LCAB(3),IHRB(3),IGBDE,JARTPB,IBMPCT
000013        00         .            ,IDSART(3),IQDS(3),IBDECT
000014        00           INTEGER DSABNB,DGABNB,GSABNB,ACSQB
000015        00    C     NEXT 2 LINES ADDED FOR SUSTAINABILITY STUDY, APR 78
000016        00           INTEGER BTFEBA
000017        00           COMMON/ENDPNT/NDPNT(2,10)
000018        00           COMMON/DTHRSH/DTHAB,DTHDB,DTHAR,DTHDR
000019        00    C  STATUS FILE PACKED
000020        00    C ARTY DATA  (ARTSTA(14,450),ARTBNT(14,15,2),CANNON(46,8,2) IN BDEDIV)   A74   47
000021        00          COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),          A74   48
000022        00         .               NDIVGS(2),NASGRT(2)                                 A74   49
000023        00    C  ARTSTA=ARTILLERY STATUS FILE                                          A74   50
000024        00    C  IARTYP=QUANTITY OF TYPES OF ARTY BNS                                  A74   51
000025        00    C  ARTBNT=ARTY BN TYPE DESCRIPTIONS                                      A74   52
000026        00    C  CANNON=ARTY TUBE TYPE DESCRIPTIONS                                    A74   53
000027        00    C  ALNGS=NONDIV GS ARTY STATUS FILE                                      A74   54
000028        00    C  NARTUB=QUANTITY OF ARTY TUBE TYPES                                    A74   55
000029        00    C  NONDIV=QUANTITY OF NON DIV BNS + REINFORCING ARTY BNS                 A74   56
000030        00    C  NDIVGS=QUANTITY OF NON DIV ARTY BNS IN THEATER                        A74   57
000031        00    C  NASGRT=QUANTITY OF DIV AND BDE ARTY BNS                               A74   58
000032        00    C                                                                        A74   59
000033        00          COMMON/ARTFP/AVGSAR(4,2),ARTYFP(15,4,2),SARTB(8),SARTR(8),FRART(2)A74   60
000034        00          INTEGER SARTB,SARTR                                                A74   61
000035        00    C  SARTB,SARTR=SUM OF NON DIV GS ARTY BN BY BN TYPE                      A74   62
000036        00    C  AVGSAR=AVERAGE ME IFP (SUM AT ALA AP) FOR NON DIV GS ARTY (AVG BN)    A74   63
000037        00    C   ARTYFP=ME IFP FOR EACH ARTY BN TYPE FOR AT ALA AP BY SIDE            A74   64
000038        00    C  ARTYFP(BN TYPE,4,SIDE.=SUM AT+ALA+AP IFP FOR ME                       A74   65
000039        00    C  FRART=AVERAGE INCREASED FIRE RATE FOR ALL TUBE TYPES                  A74   66
000040        00          COMMON/HPCT/HPCTCD,HPCTC
000041        00          INTEGER DTHAB,DTHDB,DTHAR,DTHDR
000042        00          COMMON/CRHLOS/INDCRP,CRLOSS(5)
000043        00          COMMON/DIVMOV/ IDVWID(40,2),RATIDV(40,2),NUMDIV(2),DIVIFP(40),
000044        00         .DPCIFP(40)            @DIVMOVE AND RATIDIV SHORTENED 31JUL73DOC
000045        00    C  BIGHEL IS AVERAGE HELICOPTER 3X5 IFP USED BY RED IN ESTIMATION
000046        00    C  BLUE DIV =1-70  HELIFP
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000104  00          DO 3100 J=1,NBNTPB
000105  00            CALL PIK (BDIV(INDEX),LOVERB,BLBDNB,MANBNB(J,I))
000106  00            LOVERB=LOVERB+BLBDNB
000107  00   3100   CONTINUE
000108  00          GO TO LABEL
000109  00   1001   ISTATE=ISTB(I)
000110  00          MSN=0
000111  00          IF (ISTATE.GE.DTHDB) MSN=1
000112  00          IF (ISTATE.GE.DTHAB) MSN=2
000113  00  C     NEXT 16 LINES ADDED TO STOP BLUE BDE FROM ATTACKING BEYOND
000114  00  C      EAST ENDPOINT, JAN 79
000115  00          IF(IRSRB .NE. 1) GO TO 2050
000116  00  C       RESERVE BRIGADE, CHECK ENTIRE DIVISION FRONT SINCE M1/M2 =0
000117  00          M1 = MINL
000118  00          M2 = MINH
000119  00   2050  CONTINUE
000120  00          IF(M1.EQ.0 .OR. M2.EQ.0) GO TO 2040
000121  00             CALL CINDEX(M1,BTFEBA,INDEXL,LOVERL)
000122  00          DO 2052 MS=M1,M2
000123  00             CALL PIK(FEBA(INDEXL),LOVERL,BTFEBA,NOWFBA)
000124  00          LOVERL = LOVERL +BTFEBA
000125  00          MIN100 = (MS-1)/100 +1
000126  02           IF (NOWFBA.LT.NDPNT(2,MIN100)) GO TO 2052
000127  00  C             LIMIT MISSION TO DEFEND OR DELAY
000128  00              MSN = MINO(MSN,1)
000129  00          GO TO 2040
000130  00   2052 CONTINUE
000131  00  C
000132  00   2040   MSNB(I)=MSN
000133  00          GO TO 2100
000134  00   1002   CALL PIK (BDIV(INDEX),LOVER+BSBDMS,BLBDMS,MSNB(I))
000135  00          CALL PIK (BDIV(INDEX),LOVER+BSBDDR,BLBDDR,IDRB(I))
000136  00          CALL PIK (BDIV(INDEX),LOVER+BSBDDS,BLBDDS,IDSB(I))
000137  00          CALL PIK (BDIV(INDEX),LOVER+BSBDGR,BLBDGR,IGRB(I))
000138  00          CALL PIK (BDIV(INDEX),LOVER+BSBDCA,BLBDCA,LCAB(I))
000139  00          CALL PIK (BDIV(INDEX),LOVER+BSBDHR,BLBDHR,IHRB(I))
000140  00   2100   LOVER=LOVER+BTBDEE
000141  00   3000 CONTINUE
000142  00  C
000143  00  C----------RETRIEVE DVSN HELICOPTER DATA
000144  00          DO 3200 I=1,NHELIB
000145  00            CUMHLB(I)=0.
000146  00            DO 3201 J=1,5
000147  00              DO 3202 K=1,3
000148  00          BBHIFP(K,J,I)=DVHEL(I,INDIV)*HELIFP(K,J,INDIV)+(FLOAT(IBHPCT)/100
000149  00         1.)*CRHEL(I,INDCRP)*HELIFP(K,J,INDCRP+70)
000150  00  C      1.)*CRHEL(I,INDCRP)*HELIFP(K,J,INDCRP+50)
000151  00  C       ABOVE REPLACED SEP 75 CAA
000152  00   3202       CONTINUE
000153  00   3201     CONTINUE
000154  00   3200 CONTINUE
000155  00  C
000156  00          RETURN
000157  00          END

      END ELT.
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@HDG,P  ****** PIKRV/ENDPNT ******

@ELT,L 7SPRINT1.PIKRV/ENDPNT
ELT007 S7JRIA 02/27/79 14:21:06 (1,)
000001       00          COMPILER (XM = 1)
000002       00          SUBROUTINE PIKRV (INDIV,IRQST)
000003       00            INCLUDE PROC
000004       00    C
000005       00    C---------ROUTINE TO UNPACK RED DIVISION DATA
000006       00    C
000007       00          COMMON/BNTYPE/NBNTPB,NBNTPR
000008       00    C     NEXT 2 LINES ADDED TO STOP ATTACK BEYOND ENDPOINT, JAN 79
000009       00          INTEGER BTFEBA
000010       00          COMMON/ENDPNT/NDPNT(2,10)
000011       00           INCLUDE BTRDV
000012       00          COMMON/DTHRSH/DTHAB,DTHDB,DTHAR,DTHDR
000013       00          INTEGER DTHAB,DTHDB,DTHAR,DTHDR
000014       00          COMMON/MANUNT/BMAN(50),BAB,BCAS,BHLPCT,CUMHLB(5),BBMIFP(3,5,5),
000015       00         *            RMAN(50),RAB,RCAS,HELIKL(5)
000016       00          COMMON/IWPNTP/NTNKS(2),NLARMR(2),NHELOS(2),NANTNK(2)
000017       00          COMMON/RVDATA/MINRV(2),DSABNR,DGABNR,GSABNR,ACSQR,ISTR,MANBNR(50),
000018       00         *             MSNR,IDRR,IGRR,LCAR,JARTPR,IDVTP,IRDS
000019       00          INTEGER DSABNR,DGABNR,GSABNR,ACSQR
000020       00          EQUIVALENCE (MINRV(1),MINL),(MINRV(2),MINH)
000021       00    C
000022       00          CALL CINDEX (INDIV,BTRVEE,INDEX,LOVER)
000023       00    C
000024       00          CALL PIK (RDIV(INDEX),LOVER+BSRVLM,BLRVLM,MINL)
000025       00          CALL PIK (RDIV(INDEX),LOVER+BSRVHM,BLRVHM,MINH)
000026       00          CALL PIK (RDIV(INDEX),LOVER+BSRVST,BLRVST,ISTR)
000027       00          CALL PIK (RDIV(INDEX),LOVER+BSRVDS,BLRVDS,DSABNR)
000028       00          CALL PIK (RDIV(INDEX),LOVER+BSRVGS,BLRVGS,GSABNR)
000029       00          CALL PIK (RDIV(INDEX),LOVER+BSRVDG,BLRVDG,DGABNR)
000030       00          CALL PIK (RDIV(INDEX),LOVER+BSRVAT,BLRVAT,JARTPR)
000031       00          CALL PIK (RDIV(INDEX),LOVER+BSRVDT,BLRVDT,IDVTP)
000032       00          CALL PIK (RDIV(INDEX),LOVER+BSRVQD,BLRVQD,IRDS)
000033       00          IF(MINH.GE.MINL) GO TO 1903
000034       00          IF (MINH.EQ.0) GO TO 1903
000035       00          PRINT 1901,INDIV,MINL,MINH
000036       00    1901  FORMAT('0 *PIKRV  RED DIV',I4,' MINISECTORS',2I5,
000037       00         *  ' BOUNDS SCREWED UP**** ABORT****')
000038       00          RETURN 0
000039       00     1903 CONTINUE
000040       00          LOVERB=LOVER+BSRVNR
000041       00          DO 3000 I=1,NBNTPR
000042       00            CALL PIK (RDIV(INDEX),LOVERB,BLRVNR,MANBNR(I))
000043       00            LOVERB=LOVERB+BLRVNR
000044       00     3000 CONTINUE
000045       00          IF (IRQST.EQ.1) GO TO 2000
000046       00    C
000047       00    C---------REQUEST IS FOR OUTCOME DETERMINATION
000048       00          CALL PIK (RDIV(INDEX),LOVER+BSRVMS,BLRVMS,MSNR)
000049       00          CALL PIK (RDIV(INDEX),LOVER+BSRVDR,BLRVDR,IDRR)
000050       00          CALL PIK (RDIV(INDEX),LOVER+BSRVGR,BLRVGR,IGRR)
000051       00          CALL PIK (RDIV(INDEX),LOVER+BSRVCA,BLRVCA,LCAR)
000052       00          CALL PIK (RDIV(INDEX),LOVER+BSRVAC,BLRVAC,ACSQR)
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000053   00          GO TO 9999
000054   00    C
000055   00    C---------REQUEST IS FOR OUTCOME ESTIMATION
000056   00     2000 MSNR=0
000057   00          IF (ISTR.GE.DTHDR) MSNR=1
000058   00    C     NEXT 8 LINES ADDED TO STOP ATTACK BEYOND ENDPOINT, JAN 79
000059   00          IF(MINH .EQ. 0) GO TO 55
000060   00          CALL CINDEX(MINL,BTFEBA,INDEXF,LOVERF)
000061   00          DO 52 I=MINL,MINH
000062   00          CALL PIK(FEBA(INDEXF),LOVERF,BTFEBA,NWFEBA)
000063   00          LOVERF = LOVERF +BTFEBA
000064   00          MIN100 = (I-1)/100 +1
000065   01          IF(NWFEBA .LE. NDPNT(1,MIN100)) GO TO 56
000066   00       52 CONTINUE
000067   00       55 IF (ISTR.GE.DTHAR) MSNR=2
000068   00       56 IDRR=0
000069   00          IGRR=0
000070   00          BHLPCT=0.
000071   00    C
000072   00              NH=NHELOS(2)
000073   00              IF(NH .LE. 0)GO TO 9999
000074   00              DO 3100 I=1,NH
000075   00              DO 3100 J =1,5
000076   00              DO 3100 K=1,3
000077   00     3100 BRIFP(K,J,I)=RDHEL(I,INDIV)*HRIFP(K,J,INDIV)
000078   00    C---------EXIT
000079   00     9999 RETURN
000080   00          END
```

END ELT.


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WHDG,P  •••••  PREDAT/PHASE  ••••••

ELLT,L 75PRINT1,PREDAT/PHASE
ELT007 S73RIA 02/27/79 14:21:07 (7,)
000001   03          COMPILER (XM=1)
000002   03          COMPILER (DATA=SHORT)
000003   03          BLOCK DATA PREDAT
000004   03    C
000005   03    C---------AIR SECTION LABELS
000006   03          COMMON/AIRLAB/HAOPT(2),HAAC(2),HALOBD(2),HAHIBD(2),HAATRT(2),
000007   03         •              HAALCH(2),HAFBMV(2),HAFRAE(2),HASMCV(2),HAEX(2),
000008   03         •              HASCRM(2),HARISK(2),HACAS(2),HAPRA(2),HAPRG(2),
000009   03         •              HAKNT(2),HAFLR(2),HAINAL(2),HAADSM(2),HAIFP(2)
000010   03          DATA HAOPT/4HAIRO,4HPTNS/
000011   03          DATA HAAC/4HINIT,4HAC  /
000012   03          DATA HALOBD/4HALLO,4HBNDS/
000013   03          DATA HAHIBD/4HALHI,4HBNDS/
000014   03          DATA HAATRT/4HATRT,4HTHRS/
000015   03          DATA HAALCH/4HALLO,4HCHNG/
000016   03          DATA HAFBMV/4HFBMV,4HTHRS/
000017   03          DATA HAFRAE/4HFAEN,4HTHRS/
000018   03          DATA HASMCV/4HSMCN,4HVFCT/
000019   03          DATA HAEX/4HADSM,4HEXPR/
000020   03          DATA HASCRM/4HSCRA,4HMBLE/
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000135  03        DATA BSRVDT,BLRVDT,BSRVQD,BLRVQD,BSRVNR,BLRVNR/83,2,85,3,88,4/
000136  03  C  RVDS = ARTY STATUS FILE INDEX OF DIV DS ARTY BN
000137  03  C  RVQD = QUANT OF BNS IN DS STATUS FLE
000138  03  C  RVDG = ARTY STATUS FILE INDEX OF DIV GS ARTY BN
000139  03  C  RVAT = QUANT OF GS BNS ORGANIC TO DIV
000140  03  C  RVGS = QUANT OF NON-DIV GS ARTY BNS
000141  03  C
000142  03  C
000143  03  C---------BIT SPECIFICATIONS REQUIRED BY TIMEPD ROUTINE
000144  03        COMMON/BTREIN/BTRFEE
000145  03        INTEGER BTRFEE
000146  03        DATA BTRFEE/5/
000147  03  C
000148  03  C---------BIT SPECIFICATIONS FOR TABLE SECTION
000149  03        COMMON/BTTABL/BTSTDG,BTFEBC,IBIASC
000150  03        INTEGER BTSTDG,BTFEBC
000151  03        DATA BTSTDG,BTFEBC,IBIASC/5,10,500/
000152  03  C
000153  03  C---------SCENARIO SECTION BIT SPECIFICATIONS
000154  03        COMMON/BTTSPC/BTFEBA,BTTRCE,BSTRFL,BLTRFL,BSTRFH,BLTRFH,BSTRTP,
000155  03       •              BLTRTP
000156  03        INTEGER BTFEBA
000157  03        DATA BTFEBA/14/
000158  03        INTEGER BTTRCE,BSTRFL,BLTRFL,BSTRFH,BLTRFH,BSTRTP,BLTRTP
000159  03        DATA BTTRCE,BSTRFL,BLTRFL,BSTRFH,BLTRFH/30,0,14,14,14/
000160  03        DATA BSTRTP,BLTRTP/28,2/
000161  03  C
000162  03  C---------CONSTANT SECTION LABELS
000163  03        COMMON/CONLAB/HCTDEL(2),HCADEL(2),HCATH(2),HCAINT(2),HCCDEL(2),
000164  03       •              HCCTH(2),HCCINT(2),HCDTH(2),HCFATG(2),HCARTY(2),
000165  03       •              HCASMF(2),HPTYPE(2),HEQTYP(2),HPCASL(2),HPKIA(2),
000166  03       •              HPWIA(2)
000167  03        DATA HCTDEL/4HTCDE,4HLAYS/
000168  03        DATA HCADEL/4HACDE,4HLAYS/
000169  03        DATA HCATH/4HACTH,4HRESH/
000170  03        DATA HCAINT/4HACIN,4HTELL/
000171  03        DATA HCCDEL/4HCCDE,4HLAYS/
000172  03        DATA HCCTH/4HCCTH,4HRESH/
000173  03        DATA HCCINT/4HCCIN,4HTELL/
000174  03        DATA HCDTH/4HDCTH,4HRESH/
000175  03        DATA HCFATG/4HFATI,4HGUE /
000176  03        DATA HCARTY/4HARTY,4HRATE/
000177  03        DATA HCASMF/4HRESA,4HSSIM/
000178  03        DATA HPTYPE/4HPERS,4HTYPE/
000179  03        DATA HEQTYP/4HEQIP,4HTYPE/
000180  03        DATA HPCASL/4HPERS,4HCASL/
000181  03        DATA HPKIA/4HPERS,4HNKIA/
000182  03        DATA HPWIA/4HPERS,4HNWIA/
000183  03  C
000184  03  C---------CARD I/O FORMATS
000185  03        COMMON/FORMAT/INFORM(13,66),OTFORM(15,66),NITEM(66)
000186  03        INTEGER OTFORM
000187  03        DATA NITEM/5,15,5,9,12,6,12,1,5,6,
000188  03       •           9,4,2,6,10,6,8,5,8,14,
000189  03       •           12,11,20,8,8,9,8,2,5,9,
000190  03       •           4,4,3,8,2,4,5,1,6,1,
000191  03       •           6,3,12,6,7,10,2,11,3,3,              @PHASE 10JAN
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000249  03        EQUIVALENCE (OTFORM(1,35),OFM35),(OTFORM(1,36),OFM36)
000250  03        EQUIVALENCE (OTFORM(1,37),OFM37),(OTFORM(1,38),OFM38)
000251  03        EQUIVALENCE (OTFORM(1,39),OFM39),(OTFORM(1,40),OFM40)
000252  03        EQUIVALENCE (OTFORM(1,41),OFM41),(OTFORM(1,42),OFM42)
000253  03        EQUIVALENCE (OTFORM(1,43),OFM43),(OTFORM(1,44),OFM44)
000254  03        EQUIVALENCE (OTFORM(1,45),OFM45),(OTFORM(1,46),OFM46)
000255  03        EQUIVALENCE (OTFORM(1,47),OFM47),(OTFORM(1,48),OFM48)
000256  03        EQUIVALENCE (OTFORM(1,49),OFM49),(OTFORM(1,50),OFM50)
000257  03        EQUIVALENCE (OTFORM(1,51),OFM51),(OTFORM(1,52),OFM52)
000258  03        EQUIVALENCE (OTFORM(1,53),OFM53)
000259  03        EQUIVALENCE (OTFORM(1,54),OFM54)
000260  03        EQUIVALENCE (OTFORM(1,55),OFM55)
000261  03        EQUIVALENCE (OTFORM(1,56),OFM56)
000262  03        EQUIVALENCE (OTFORM(1,57),OFM57)
000263  03        EQUIVALENCE (OTFORM(1,58),OFM58)
000264  03        EQUIVALENCE (OTFORM(1,59),OFM59)
000265  03        EQUIVALENCE (OTFORM(1,60),OFM60)
000266  03        EQUIVALENCE (OTFORM(1,61),OFM61)
000267  03         EQUIVALENCE (OTFORM(1,62),OFM62),(OTFORM(1,63),OFM63)
000268  03        EQUIVALENCE (OTFORM(1,64),OFM64),(OTFORM(1,65),OFM65)
000269  03        EQUIVALENCE (OTFORM(1,66),OFM66)
000270  03        INTEGER OFM1,OFM2,OFM3,OFM4,OFM5,OFM6,OFM7,OFM8,OFM9,OFM10,
000271  03       •        OFM11,OFM12,OFM13,OFM14,OFM15,OFM16,OFM17,OFM18,OFM19,
000272  03       •        OFM20,OFM21,OFM22,OFM23,OFM24,OFM25,OFM26,OFM27,OFM28,
000273  03       •        OFM29,OFM30,OFM31,OFM32,OFM33,OFM34,OFM35,OFM36,OFM37,
000274  03       •        OFM38,OFM39,OFM40,OFM41,OFM42
000275  03        INTEGER OFM43,OFM44,OFM45,OFM46,OFM47,OFM48,OFM49,OFM50,OFM51
000276  03        INTEGER OFM52,OFM53
000277  03        INTEGER OFM54
000278  03        INTEGER OFM55,OFM56,OFM57
000279  03        INTEGER OFM58,OFM59,OFM60
000280  03        INTEGER OFM61
000281  03        INTEGER OFM62,OFM63,OFM64,OFM65
000282  03   C
000283  03   C----------UNIVAC DIMENSIONS FOR I/O FORMATS      13SEP73D0C
000284  03        DIMENSION IFM1(5),IFM2(5),IFM3(5),IFM4(5),IFM5(5),IFM6(5)
000285  03        DIMENSION IFM7(6),IFM8(9),IFM9(5),IFM10(5),IFM11(5),IFM12(5)
000286  03        DIMENSION IFM13(5),IFM14(7),IFM15(5),IFM16(9),IFM17(5)
000287  03        DIMENSION IFM18(6),IFM19(7),IFM20(9),IFM21(6),IFM22(7)
000288  03        DIMENSION IFM23(5),IFM24(6)
000289  03        DIMENSION IFM25(5),IFM26(6),IFM27(6),IFM28(6),IFM29(6),IFM30(5)
000290  03        DIMENSION IFM31(9),IFM32(6),IFM33(5),IFM34(5),IFM35(5),IFM36(7)
000291  03        DIMENSION IFM37(5),IFM38(9),IFM39(6),IFM40(5),IFM41(7),IFM42(5)
000292  03        DIMENSION IFM43(5),IFM44(5),IFM45(5),IFM46(5),IFM47(9)
000293  03        DIMENSION IFM48(7),IFM49(5),IFM50(5),IFM51(5),IFM52(6)
000294  03        DIMENSION IFM53(8),IFM54(5),IFM55(6),IFM56(5),IFM57(5)
000295  03        DIMENSION IFM58(6),IFM59(5),IFM60(5),IFM61(6),IFM62(8),IFM63(7)
000296  03        DIMENSION IFM64(9),IFM65(5),IFM66(5)
000297  03   C
000298  03        DIMENSION OFM1(6),OFM2(6),OFM3(6),OFM4(7),OFM5(6),OFM6(6)
000299  03        DIMENSION OFM7(7),OFM8(6),OFM9(6),OFM10(6),OFM11(7),OFM12(6)
000300  03        DIMENSION OFM13(6),OFM14(8),OFM15(6),OFM16(6),OFM17(6),OFM18(8)
000301  03        DIMENSION OFM19(9),OFM20(11),OFM21(7),OFM22(9),OFM23(6),OFM24(7)
000302  03        DIMENSION OFM25(6),OFM26(7),OFM27(7),OFM28(7),OFM29(8),OFM30(6)
000303  03        DIMENSION OFM31(6),OFM32(7),OFM33(6),OFM34(6),OFM35(6),OFM36(9)
000304  03        DIMENSION OFM37(6),OFM38(6),OFM39(7),OFM40(6),OFM41(8),OFM42(6)
000305  07        DIMENSION OFM43(6),OFM44(6),OFM45(6),OFM46(6),OFM47(6),OFM48(9)  &PHASE 1DJAN
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000363      03          DATA IFM34/24H(2A4,2X,8F5.2,22X,A3,I5)/
000364      03          DATA IFM35/25H(2A4,2X,2F10.2,42X,A3,I5)/
000365      03          DATA IFM36/38H(2A4,2X,2F10.2,F10.0, F10.2,22X,A3,I5)/
000366      03          DATA IFM37/25H(2A4,2X,5F10.4,12X,A3,I5)/
000367      03          DATA IFM38/21H(2A4,2X,I5,57X,A3,I5)/
000368      03          DATA IFM39/30H(2A4,2X,I5,5X,5F10.0,2X,A3,I5)/
000369      03          DATA IFM40/24H(2A4,2X,F10.0,52X,A3,I5)/
000370      03          DATA IFM41/37H(2A4,2X,2F10.2,F10.0,3F10.4,2X,A3,I5)/
000371      03          DATA IFM42/25H(2A4,2X,3F10.0,32X,A3,I5)/
000372      03          DATA IFM43/24H(2A4,2X,12F5.0,2X,A3,I5)/
000373      03          DATA IFM44/24H(2A4,2X,6F10.0,2X,A3,I5)/
000374      03          DATA IFM45/24H(2A4,2X,7F5.0,27X,A3,I5)/
000375      03          DATA IFM46/25H(2A4,2X,10F5.0,12X,A3,I5)/
000376      03          DATA IFM47/21H(2(2A4,2X),52X,A3,I5)/
000377      03          DATA IFM48/41H(2A4,2X,4I5,F5.2,2I5,2F5.0,2I1,15X,A3,I5)/   @PHASE 10JAN
000378      03          DATA IFM49/25H(2A4,2X,3F10.0,32X,A3,I5)/
000379      03          DATA IFM50/24H(2A4,2X,3F5.0,47X,A3,I5)/
000380      03          DATA IFM51/26H(2A4,2X,6I5,7I3,11X,A3,I5)  /
000381      03          DATA IFM52/28H(2A4,2X,I5,5X,10I5,2X,A3,I5)/
000382      03          DATA IFM53/46H(2(2A4,2X),5I5,1X,A4,4X,F6.0,3I3,2X,I1,A3,I5)  /
000383      03          DATA IFM54/23H(2A4,2X,16I2,30X,A3,I5)/
000384      03          DATA IFM55/30H(2A4,2X,3F5.0,6F4.2,23X,A3,I5)/
000385      03          DATA IFM56/24H(2A4,2X,7F6.2,20X,A3,I5)/
000386      03          DATA IFM57/26H(2A4,2X,2F4.2,9F6.2,A3,I5)/
000387      03          DATA IFM58/29H(2A4,2X,F5.0,7F6.2,15X,A3,I5)/
000388      03          DATA IFM59/24H(2A4,2X,10F6.2,2X,A3,I5)/
000389      03          DATA IFM60/26H(2A4,12(2X,F3.0),4X,A3,I5)/
000390      03           DATA IFM61/36H(2A4,2X,2A4,3F6.0,4F6.3,3F4.2,A3,I5)/
000391      03          DATA IFM62/43H(2A4,2X,12,5(1X,I1,1X,I2,1X,F5.0),6X,A3,I5)/
000392      03          DATA IFM63/23H(2A4,12X,50I1,2X,A3,I5)/
000393      03          DATA IFM64/24H(2A4,2X,7F7.0,13X,A3,I5)/
000394      03    C     DATA IFM65/28H(2A4,2X,F5.0,8F7.0,1X,A3,I5)/
000395      03          DATA IFM65/28H(2A4,2X,F7.0,7F7.0,6X,A3,I5) /
000396      03          DATA IFM66/30H(2A4,2X,I2,2X,9I6,4X,A3,I5)         /
000397      03    C
000398      03          DATA OFM1/32H(1H ,20X,3(2A4,2X),I5,37X,A3,I5)/
000399      03          DATA OFM2/30H(1H ,20X,2A4,2X,15A4,2X,A3,I5)/
000400      03          DATA OFM3/36H(1H ,20X,2A4,2X,2I5,3F5.2,52X,A3,I5)/
000401      03          DATA OFM4/35H(1H ,20X,2A4,2X,3(3I5,5X),2X,A3,I5)/
000402      03          DATA OFM5/32H(1H ,20X,2A4,2X,6(2I6),2X,A3,I5)/
000403      03          DATA OFM6/32H(1H ,20X,2A4,2X,6F8.2,14X,A3,I5)/
000404      03          DATA OFM7/38H(1H ,20X,2A4,2X,4(2I6,2X,A4),2X,A3,I5)/
000405      03          DATA OFM8/29H(1H ,20X,2A4,3X,A4,57X,A3,I5)/
000406      03          DATA OFM9/30H(1H ,20X,2A4,2X,5I5,37X,A3,I5)/
000407      03          DATA OFM10/30H(1H ,20X,2A4,2X,6I5,32X,A3,I5)/
000408      03          DATA OFM11/36H(1H ,20X,2A4,2X,5F5.2,4I5,17X,A3,I5)/
000409      03    C           **** CAA 24SEP 75 ***
000410      03          DATA OFM12/32H(1H ,20X,2A4,2X,4F6.2,38X,A3,I5)/
000411      03          DATA OFM13/30H(1H ,20X,2A4,2X,2I5,52X,A3,I5)/
000412      03          DATA OFM14/45H(1H ,20X,2A4,2X,3F5.3,4X,I1,2F10.7,22X,A3,I5)/
000413      03          DATA OFM15/33H(1H ,20X,2A4,2X,10F5.2,12X,A3,I5)/
000414      03          DATA OFM16/29H(1H ,20X,4(2A4,2X),32X,A3,I5)/
000415      03          DATA OFM17/30H(1H ,20X,2A4,2X,8I5,22X,A3,I5)/
000416      03          DATA OFM18/40H(1H ,20X,2(2A4,2X),3I5,5X,I10,22X,A3,I5)/
000417      03          DATA OFM19/49H(1H ,20X,2(2A4,2X),3I5,5X,I10,1X,A4,I6X,I1,A3,I5)/
000418      03          DATA OFM20/61H(1H ,20X,2(2A4,2X),I5,5X,2(A4,1X,A4,1X,I5),I5,3I2,I1
000419      03         *,A3,I5)   /
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000420      03          DATA OFM21/39H(1H ,20X,2A9,2X,I5,1X,A9,10I5,2X,A3,I5)/
000421      03          DATA OFM22/49H(1H ,20X,2(2A9,2X),2I5,I2,I3,9I5,1X,A9,I2X,A3,I5)  /
000422      03          DATA OFM23/30H(1H ,20X,2A9,2X,20I3,2X,A3,I5)/
000423      03          DATA OFM24/38H(1H ,20X,2A9,2X,I5,5X,7F6.2,10X,A3,I5)/
000424      03          DATA OFM25/31H(1H ,20X,2A9,2X,8F7.1,6X,A3,I5)/
000425      03          DATA OFM26/36H(1H ,20X,2A9,2X,I5,5X,8I5,I2X,A3,I5)/
000426      03          DATA OFM27/36H(1H ,20X,2A9,2X,I5,5X,7I5,17X,A3,I5)/
000427      03          DATA OFM28/36H(1H ,20X,2A9,2X,I5,5X,I10,42X,A3,I5)/
000428      03          DATA OFM29/41H(1H ,20X,2A9,7X, F7.2,5X,4F7.2,17X,A3,I5)/
000429      03          DATA OFM30/31H(1H ,20X,2A9,7X,9F6.1,3X,A3,I5)/
000430      03          DATA OFM31/29H(1H ,20X,3(2A9,2X),42X,A3,I5)/
000431      03          DATA OFM32/39H(1H ,20X,2A9,2X,3F10.0,F10.2,22X,A3,I5)/
000432      03          DATA OFM33/33H(1H ,20X,2A9,2X,3F10.2,32X,A3,I5)/
000433      03          DATA OFM34/31H(1H ,20X,2A9,2X,8F7.4,6X,A3,I5)/
000434      03          DATA OFM35/33H(1H ,20X,2A9,2X,2F10.2,42X,A3,I5)/
000435      03          DATA OFM36/46H(1H ,20X,2A9,2X,2F10.2,F10.0, F10.2,22X,A3,I5)/
000436      03          DATA OFM37/33H(1H ,20X,2A9,2X,5F10.6,12X,A3,I5)/
000437      03          DATA OFM38/29H(1H ,20X,2A9,2X,I5,57X,A3,I5)/
000438      03          DATA OFM39/38H(1H ,20X,2A9,2X,I5,5X,5F10.0,2X,A3,I5)/
000439      03          DATA OFM40/32H(1H ,20X,2A9,2X,F10.0,52X,A3,I5)/
000440      03          DATA OFM41/45H(1H ,20X,2A9,2X,2F10.2,F10.0,3F10.4,2X,A3,I5)/
000441      03          DATA OFM42/33H(1H ,20X,2A9,2X,3F10.0,32X,A3,I5)/
000442      03          DATA OFM43/32H(1H ,20X,2A9,2X,12F5.1,2X,A3,I5)/
000443      03          DATA OFM44/32H(1H ,20X,2A9,2X,6F10.3,2X,A3,I5)/
000444      03          DATA OFM45/32H(1H ,20X,2A9,2X,7F7.4,13X,A3,I5)/
000445      03          DATA OFM46/33H(1H ,20X,2A9,2X,10F5.2,12X,A3,I5)/
000446      03          DATA OFM47/29H(1H ,20X,2(2A9,2X),52X,A3,I5)/
000447      06          DATA OFM48/49H(1H ,20X,2A9,2X,9I5,F5.2,2I5,2F5.0,2I1,16X,A3,I5)/  @PHASE 10 JAN
000448      03          DATA OFM49/33H(1H ,20X,2A9,2X,3F10.3,32X,A3,I5)/
000449      03          DATA OFM50/32H(1H ,20X,2A9,2X,3F7.4,41X,A3,I5)/
000450      03          DATA OFM51/34H(1H ,20X,2A9,2X,6I5,7I3,11X,A3,I5)/
000451      03          DATA OFM52/36H(1H ,20X,2A9,2X,I5,5X,10I5,2X,A3,I5)/
000452      03          DATA OFM53/53H(1H ,20X,2(2A9,2X),5I5,1X,A9,9X,F6.0,3I3,2X,I1,A3,I5
000453      03         *)/
000454      03    C
000455      03          DATA OFM54/31H(1H ,20X,2A9,2X,16I2,30X,A3,I5)/
000456      03          DATA OFM55/38H(1H ,20X,2A9,2X,3F6.0,6F6.2,15X,A3,I5)/
000457      03          DATA OFM56/32H(1H ,20X,2A9,2X,7F7.4,20X,A3,I5)/
000458      03          DATA OFM57/34H(1H ,20X,2A9,2X,2F9.2,9F6.2,A3,I5)/
000459      03    C     DATA OFM58/37H(1H ,20X,2A9,2X,F5.0,7F6.2,15X,A3,I5)/ ***FOR GHOST
000460      03          DATA OFM58/37H(1H ,20X,2A9,2X,F7.2,7F6.3,16X,A3,I5)/
000461      03          DATA OFM59/32H(1H ,20X,2A9,2X,10F7.2,2X,A3,I5)/
000462      03          DATA OFM60/39H(1H ,20X,2A9,12(2X,F3.0),4X,A3,I5)/
000463      03           DATA OFM61/40H(21X,2A9,2X,2A9,3F6.0,4F6.3,3F9.2,A3,I5)/
000464      03          DATA OFM62/51H(1H ,20X,2A9,2X,I2,5(1X,I1,1X,I2,1X,F7.1),5X,A3,I5)/
000465      03    C    *0/
000466      03          DATA OFM63/26H(1H ,2A9,2X,50I2,9X,A3,I5)/
000467      03          DATA OFM64/32H(1H ,20X,2A9,2X,7F7.4,13X,A3,I5)/
000468      03    C     DATA OFM65/36H(1H ,20X,2A9,2X,F5.2,8F7.4,1X,A3,I5)/
000469      03          DATA OFM65/36H(1H ,20X,2A9,2X,F7.4,7F7.4,6X,A3,I5) /
000470      03          DATA OFM66/30H(9X,2A9,2X,I2,2X,9I6,4X,A3,I5) /
000471      03    C
000472      03    C----------CARD INPUT BUFFER
000473      03          COMMON/INPBUF/HLAB(2),INBUF(50),MASEQ,ISEQNO
000474      03    C
000475      03    C---FORTRAN I/O UNIT DECLARATIONS (FOR CAA, 9APR73WS)
000476      03          COMMON/IOUNIT/IOINP,IOOUT,IOTCM,IOPOST,IOERR,IO3
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000534   03   C           RESOURCE UNITS)
000535   03        COMMON/SHPBUF/MXRIDV,MXRABN,MXSHIP,NRIDV(2),NRABN(2),NSHIP(2),
000536   03       •              IRIDV(50,3,2),IRABN(50,9,2)
000537   03        DATA MXRIDV,MXRABN,MXSHIP/50,50,50/
000538   03        DATA NRIDV,NRABN,NSHIP/6•0/
000539   03   C
000540   03   C----------ARRAY TRANSFER STORAGE BUFFER
000541   03        COMMON/STOBUF/IBUFFR(9518)
000542   03        DIMENSION BUFFER(9518)
000543   03        EQUIVALENCE (IBUFFR,BUFFER)
000544   03   C
000545   03   C----------IDENTIFICATION INTEGERS FOR TAPE LABELS
000546   03        COMMON/TAPEID/IDPOST,IDTCM
000547   03        DATA IDPOST,IDTCM/1,2/
000548   03   C
000549   03   C----------TABLES SECTION LABELS
000550   03        COMMON/TBLLAB/HTC3FT(2),HTTRFT(2),HTPSFT(2),HTHLKR(2),HTHLLR(2),
000551   03       •              HTFEBC(2),HTSTIM(2),HTOPTN(2),HTSTDG(2),HTBREF(2),
000552   03       •             HESTHS(2),HOUTHS(2),HDECMT(2)
000553   03        DATA HTC3FT/4HC3FA,4HCTOR/
000554   03        DATA HTTRFT/4HTERF,4HACTR/
000555   03        DATA HTBREF/4HBARE,4HFFCT/
000556   03        DATA HTPSFT/4HPOSF,4HACTR/
000557   03        DATA HTHLKR/4HHELI,4HKLRT/
000558   03        DATA HTHLLR/4HHELI,4HLSRT/
000559   03        DATA HTFEBC/4HFEBA,4HCHNG/
000560   03        DATA HTSTIM/4HSTAT,4HIMPR/
000561   03        DATA HTOPTN/4HTABL,4HOPTN/
000562   03        DATA HTSTDG/4HSTAT,4HDEGR/
000563   03        DATA HESTHS/4HESTH,4HRSHD/
000564   03        DATA HOUTHS/4HOUTH,4HRSHD/
000565   03        DATA HDECMT/4HREDE,4HCMTN/
000566   03   C
000567   03   C
000568   03   C----------ALPHAMERIC TERRAIN TYPES
000569   03        COMMON/TERNSP/NTRNTP,TERNTP(4)
000570   03        DATA NTRNTP/4/
000571   03        DATA TERNTP/4H   A,4H   B,4H   C,4H   D/
000572   03   C
000573   03   C----------SCENARIO SECTION LABELS
000574   03        COMMON/THELAB/HSMIN(2),HSEND(2),HSFEB(2),HSTDF(2),HSTER(2), @PHASE 10JA
000575   03       1    HSMF(2),HSPSE(2)                                        @PHASE 10JAN
000576   03        DATA HSMIN/4HMINI,4HSCTR/
000577   03        DATA HSEND/4HENDP,4HNTS /
000578   03        DATA HSFEB/4HFEBA,4HLOCN/
000579   03        DATA HSTER/4HTERR,4HAIN /
000580   03        DATA HSTDF/4HDFLT,4HTERN/
000581   03        DATA HSMF/4HMOVE,4HFCTR/
000582   03        DATA HSPSE/4HPHAS,4HLINE/                          @PHASE 10JAN
000583   03   C
000584   03   C----------UNIT SECTION LABELS
000585   03        COMMON/UNTLAB/HUMISN(2),HUARTP(2),HUARFP(2),HUARIC(2),HUARDX(2),
000586   03       •              HUARGX(2),HUKNTS(2),HUBNFP(2),HUBNIC(2),HUINGS(2),
000587   03       •              HUARMY(2),HUCORP(2),HUDVSN(2),HUBOEB(2),HUARVD(2),
000588   03       •              HUARVA(2),HUARVR(2),HUHLTP(2),HUHLFP(2),HUHLCP(2),
000589   03       •              HUHLDV(2),
000590   03       •              HUTANK(2),HULARM(2),HUHELO(2),HUATNK(2),HUWPN2(2),
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000648        03   C
000649        03   C----------COMPUTER WORD SIZE
000650        03        COMMON/WRDSIZ/IWRDSZ
000651        03   C    DATA IWRDSZ/60/
000652        03             DATA IWRDSZ/36/
000653        03   C
000654        03   C  STATUS FILE DEFINITION
000655        03        COMMON/BDEDIV/ BTSTAT,BTDYNA,BTLGSF,ISFILE(33594)
000656        03        COMMON/HALF/ NUMTC
000657        03        DATA  NUMTC/0/
000658        03        END

END ELT.

WHDG,P  •••••• PRTUNT/PRINT ••••••

WELT,L 75PRINTI,PRTUNT/PRINT
ELT007 S73RIA 02/27/79 19:21:19 (1,)
000001        00        COMPILER (XM = 1)
000002        00        SUBROUTINE PRTUNT(IL)
000003        00   C
000004        00   C----------ROUTINE TO PRINT UNIT TABLES (NOT 360 COMPATIBLE)
000005        00   C
000006        00        COMMON/BARM/NBARMY,BARMY(15)
000007        00        COMMON/BCORP/NBCORP,BCORPS(85)
000008        00        COMMON/RCORP/NRCORP,RCORPS(169)
000009        00        COMMON/RARM/NRARMY,RARMY(51)
000010        00        COMMON/PRTSW/IPRINT(2),IPP
000011        00        IF(IPP.LE. 0) GO TO 99
000012        00        ILV = IL
000013        00        CALL PRTSID(NBARMY,BARMY,BCORPS,1,ILV)
000014        01        CALL PRTSID(NRARMY,RARMY,RCORPS,2,ILV)
000015        00     99 RETURN
000016        00        END

END ELT.

WHDG,P  •••••• RARTS/ML ••••••

WELT,L 75PRINTI,RARTS/ML
ELT007 S73RIA 02/27/79 19:21:15 (3,)
000001        00        COMPILER (XM=1)
000002        00        SUBROUTINE RARTS(NARMY,ARMY,NCRP,CORPS,IS)
000003        00          INCLUDE PROC
000004        00   C
000005        00        DIMENSION ARMY(1),CORPS(1)
000006        00        COMMON/REM/ARTYMB(3),ARTYMR,TOTGSB(3),TOTGSR(3),RMCASB,RMCASR
000007        00   C    COMMON/DECRMX/ XRMT       *CANCELLED (NOT USED) AUG 78
000008        00            COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000009        02   C    COMMON/NPERD/ NTCYC,NALYC,NCCYC,NDCYC
000010        00        COMMON/USC/ IUS(70)
000011        00        COMMON/ARTDAT/ IARTYP(2),ALNGS(33,2),NARTUB(2),NONDIV(2),
000012        00       •                NDIVGS(2),NASGRT(2)
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000013  00        COMMON/DEVLIN/CARAMM(8)
000014  00  C          ************ WEAK ON-LINE DIVISION DATA ************
000015  00  C
000016  00        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000017  00       *              RPOOL(9,3,6),RPOOLC(6)
000018  00        INTEGER RPOOLC
000019  00          INTEGER RPOOL
000020  00        REAL MARGIN
000021  00  C
000022  00  C  IDEFSW = DEFENSE SWITCH
000023  00  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE * 1, AND ATK/DEF DIFF IS
000024  00  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000025  00  C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=9)
000026  00  C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000027  00  C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000028  00  C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000029  00  C
000030  00  C  LISTPL(9,6)
000031  00  C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000032  00  C           9 = DIV INDEXES OF WEAK DIVS
000033  00  C           6 = PARENT ARMY HQ
000034  00  C  LISTLC(6)
000035  00  C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000036  00  C  RPOOL(9,3,6)
000037  00  C           LIST OF REPLACEMENT DIVS
000038  00  C           9 = DIV INDEXES
000039  00  C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000040  00  C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000041  00  C           6 = PARENT ARMY HQ
000042  00  C  RPOOLC(6)
000043  00  C    NEXT LINE ADDED FOR RED ARMY RESERVE POOL, DEC 78
000044  00        COMMON/IREPL/IPOOLR(9,3,11),IPOOLC(11)
000045  00          INCLUDE BTARMY
000046  00          INCLUDE BTCORP
000047  00        COMMON/TARTRQ/TTLART(10,2)
000048  00  C     TOTAL EXPENDITURES FOR THEATER ARTY BNS (GS+DS)
000049  00        DIMENSION TOTGS(3,2)
000050  00        DIMENSION FIRPOW(3)
000051  00        EQUIVALENCE (TOTGSB(1),TOTGS(1,1))
000052  00          INCLUDE BTBDV
000053  00          INCLUDE BTBDE
000054  00          INCLUDE BTRDV
000055  00        COMMON/PWN/POLN(2),AMMON(2),OTHERN(2),PINF(2,2),QINF(2,2)
000056  00        DIMENSION IDX(2),NBN(2)
000057  00        COMMON/RESCBF/ARTKF(2),IREDOP
000058  02  C     COMMON/USCPCT/ FRACON(3)
000059  00        COMMON/TRQMNX/ RQMNTX(5,3)
000060  00  C  IREDOP=0=RED RES DIV ARTY DOES NOT SHOOT
000061  00  C  IREDOP=1= RED RES DIV ARTY DOES SHOOT AT RESERVE TARGETS
000062  00        COMMON/TRQMNS/ RQMNTS(54,2)
000063  00        COMMON/BRKART/ ARTBRK(8,2)
000064  00  C   PROCESS NON-DIV ARTY BNS
000065  00                  IF(IS.EQ.2) GO TO 5
000066  00                RQMNTX(I,1)=RQMNTX(I,1)+ALNGS(22,I)-ALNGS(23,I)
000067  00                RQMNTX(I,2)=RQMNTX(I,2)+ALNGS(26,I)-ALNGS(27,I)
000068  00                RQMNTX(I,3)=RQMNTX(I,3)+ALNGS(30,I)-ALNGS(31,I)
000069  00      5   RQMNTS(I,IS)=RQMNTS(I,IS)+ALNGS(I,IS)-ALNGS(2,IS)
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000070  00          RQMNTS(54,IS)=RQMNTS(54,IS)+ALNGS(3,IS)-ALNGS(4,IS)
000071  00          IF(IS.EQ.2) GO TO 6
000072  00                RQMNTX(5,1)=RQMNTX(5,1)+ALNGS(24,1)-ALNGS(25,1)
000073  00                RQMNTX(5,2)=RQMNTX(5,2)+ALNGS(28,1)-ALNGS(29,1)
000074  00                RQMNTX(5,3)=RQMNTX(5,3)+ALNGS(32,1)-ALNGS(33,1)
000075  00           6 DO 10 IT=1,8
000076  00          IND=6+2*(IT-1)
000077  00          X=CANNON(2,IT,IS)*ALNGS(IND,IS)
000078  00          IF(X.LE.0.) X=0.
000079  00          ARTBRK(IT,IS)=ARTBRK(IT,IS)+X
000080  00          TTLART(IT+2,IS)=TTLART(IT+2,IS)+X
000081  00          ALNGS(IND,IS)=ALNGS(IND,IS)-X
000082  00          RQMNTS(45+IT,IS)=RQMNTS(45+IT,IS)+ALNGS(IND-1,IS)
000083  00         *                                  -ALNGS(IND  ,IS)
000084  00       10    CONTINUE
000085  00       C
000086  00       C  PROCESS BY ARMY
000087  00          DO 5000 I=1,NARMY
000088  00          CALL CINDEX(I,BTAREE,INDEXA,LOVERA)
000089  00          CALL PIK(ARMY(INDEXA),LOVERA+BSARNC,BLARNC,NCORPS)
000090  00          CALL PIK(ARMY(INDEXA),LOVERA+BSARRC,BLARRC,IRC)
000091  00          LOVERA=LOVERA+BSARCI
000092  03       C    NEXT 12 LINES ADDED FOR ARMY RESERVE POOLS, DEC 78
000093  00            IPLSZ = RPOOLC(I)
000094  00            IF(IS .EQ. 2) IPLSZ = IPOOLC(I)
000095  00            IF(IPLSZ .LE. 0) GO TO 70
000096  03            J = -1
000097  03            DO 65 JJ=1,IPLSZ
000098  00            ASSIGN 65 TO LABLE
000099  00            IF(IS .EQ. 2) GO TO 63
000100  03            IDIV = RPOOL(JJ,I,1)
000101  00            GO TO 14
000102  03         63 IDIV = IPOOLR(JJ,I,1)
000103  00            GO TO 20
000104  00         65 CONTINUE
000105  00       C
000106  00       C  PROCESS BY CORPS IN ARMY
000107  00          70 DO 4000 J=1,NCORPS
000108  00          CALL PIK(ARMY(INDEXA),LOVERA,BLARCI,ICORPS)
000109  00          CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)
000110  00          CALL PIK(CORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000111  00          CALL PIK(CORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,IRD)
000112  00          LOVERC=LOVERC+BSCRDI
000113  00          LOVERA=LOVERA+BLARCI
000114  00       C  PROCESS BY DIV CORPS
000115  00          DO 3000 K=1,NDIV
000116  00          CALL PIK(CORPS(INDEXC),LOVERC,BLCRDI,IDIV)
000117  00          LOVERC=LOVERC+BLCRDI
000118  00          IF (J.EQ.IRC) GO TO 14
000119  00          IF (K.NE.IRD) GO TO 3000
000120  01       C    NEXT 6 LINES MODIFIED FOR ARMY RESERVE POOLS, DEC 78
000121  00            ASSIGN 3000 TO LABLE
000122  00            GO TO 14
000123  00       3000 CONTINUE
000124  00       4000 CONTINUE
000125  01       5000 CONTINUE
000126  01            RETURN
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000184        00    1650  CONTINUE
000185        00    C  EXAMINE BDE DS BNS
000186        00    16     DO 1000 L=1,3
000187        00           IF (IGBDE.EQ.L) GO TO 1800
000188        00           CALL PIK(BDIV(INDEX),LOVER+BSBDQD,BLBDQD,IDSART)
000189        00            IF(IDSART.LE.0) GO TO 1800
000190        00           IF (J.EQ.IRC) GO TO 6661
000191        00           TOTAMO=0.0
000192        00           AMMOH=ARTSTA(9,IDSART)/AMMON(IS)
000193        00           DO 500 M=1,3
000194        00    C  AT ALA AP
000195        00           FIRPOW(M)=0.0
000196        00           DO 400 N=7,13,3
000197        00           IF (ARTSTA(N,IDSART).LE.0.0) GO TO 400
000198        00           ITYP=ARTSTA(N-2,IDSART)
000199        00           IF(M.GT.1) GO TO 499
000200        00           X=CANNON(2,ITYP,IS)*ARTSTA(N,IDSART)
000201        00           ARTBRK(ITYP,IS)=ARTBRK(ITYP,IS)+X
000202        00           ARTSTA(N,IDSART)=ARTSTA(N,IDSART)-X
000203        00           TTLART(ITYP+2,IS)=TTLART(ITYP+2,IS)+X
000204        00    499    CONTINUE
000205        00           FIRPOW(M)=FIRPOW(M)+ARTSTA(N,IDSART)*CANNON(M+40,ITYP,IS)
000206        00           TOTAMO=TOTAMO+(ARTSTA(N,IDSART)*CANNON(45,ITYP,IS))/3.0
000207        00    400    CONTINUE
000208        00    500    CONTINUE
000209        00           IF (TOTAMO.LE.0.0) GO TO 1800
000210        00           SPENT=AMIN1(TOTAMO,AMMOH)
000211        00           DO 272 N=7,13,3
000212        00           ITYP=ARTSTA(N-2,IDSART)
000213        00           QTY = ARTSTA(N,IDSART)
000214        00           IF(QTY.LT.0.1) GO TO 272
000215        00           PCT = QTY*CANNON(45,ITYP,1)/TOTAMO
000216        00           CARAMM(ITYP) = CARAMM(ITYP)+PCT*SPENT
000217        00      272  CONTINUE
000218        00           ARTSTA(9,IDSART)=ARTSTA(9,IDSART)-SPENT
000219        00           TTLART(2,IS)=TTLART(2,IS)+SPENT
000220        00    C ---------- PROVIDE PARTITION LOSSES TO POST PROCESSOR
000221        00              IFLAG=IUS(IDIV)
000222        00           IF(IFLAG.LE.0) IFLAG=1
000223        00              CRLOX(5,2,IFLAG)=CRLOX(5,2,IFLAG)+SPENT
000224        00    6661   CALL SUMART(IDSART,IS)
000225        00           IF (J.EQ.IRC) GO TO 1800
000226        00           PCNT=AMIN1(1.0,AMMOH/TOTAMO)
000227        00           DO 650 IJ=1,3
000228        00    C  AT ALA AP
000229        00           TOTGS(IJ,IS)=TOTGS(IJ,IS)+FIRPOW(IJ)*PCNT
000230        00    650    CONTINUE
000231        00    1800   LOVER=LOVER+BTBDEL
000232        00    1000   CONTINUE
000233        00    C     NEXT LINE MODIFIED FOR ARMY RESERVE POOLS, DEC 78
000234        00           GO TO LABLE
000235        00    C  PROCESS RED RESERVE GS AND DS ARTY BNS
000236        00    20     CALL CINDEX(IDIV,BTRVEE,INDEX,LOVER)
000237        00           CALL PIK(RDIV(INDEX),LOVER+BSRVDS,BLRVDS,IDX(1))
000238        00           CALL PIK(RDIV(INDEX),LOVER+BSRVDG,BLRVDG,IDX(2))
000239        00           CALL PIK(RDIV(INDEX),LOVER+BSRVAT,BLRVAT,NBN(2))
000240        00           CALL PIK(RDIV(INDEX),LOVER+BSRVQD,BLRVQD,NBN(1))
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000241   00   C
000242   00        DO 785 LM=1,2
000243   00        IF (NBN(LM).LE.0) GO TO 785
000244   00        INDX=IDX(LM)
000245   00        IF (INDX .LT. 1) GO TO 785
000246   00        IF (J.EQ.IRC.OR.IREDOP.EQ.0) GO TO 3675
000247   00        AMMOH=ARTSTA(4,INDX)/AMMON(IS)
000248   00        TOTAMO=0.0
000249   00   C  AT ALA AP
000250   00        DO 25 M=1,3
000251   00        FIRPOW(M)=0.0
000252   00        DO 35 N=7,13,3
000253   00   C  ARTY TUBE X Y Z
000254   00        IF (ARTSTA(N,INDX).LE.0.0) GO TO 35
000255   00        ITYP=ARTSTA(N-2,INDX)
000256   00        IF(M.GT.1) GO TO 34
000257   00        X=CANNON(2,ITYP,IS)*ARTSTA(N,INDX)
000258   00        ARTBRK(ITYP,IS)=ARTBRK(ITYP,IS)+X
000259   00        TTLART(ITYP+2,IS)=TTLART(ITYP+2,IS)+X
000260   00        ARTSTA(N,INDX)=ARTSTA(N,INDX)-X
000261   00   34     CONTINUE
000262   00        FIRPOW(M)=FIRPOW(M)+ARTSTA(N,INDX)*CANNON(M+40,ITYP,IS)
000263   00        TOTAMO=TOTAMO+(ARTSTA(N,INDX)*CANNON(45,ITYP,IS))/3.0
000264   00   35   CONTINUE
000265   00   25   CONTINUE
000266   00        IF (TOTAMO.LE.0.0) GO TO 785
000267   00        SPENT=AMIN1(TOTAMO,AMMOH)
000268   00        ARTSTA(4,INDX)=ARTSTA(4,INDX)-SPENT
000269   00        TTLART(2,IS)=TTLART(2,IS)+SPENT
000270   00   3675 CALL SUMART(INDX,2)
000271   00        IF (J.EQ.IRC.OR.IREDOP.EQ.0) GO TO 785
000272   00        PCNT=AMIN1(1.0,AMMOH/TOTAMO)
000273   00   C  AT ALA AP
000274   00        DO 29 IJ=1,3
000275   00        TOTGS(IJ,IS)=TOTGS(IJ,IS)+FIRPOW(IJ)*PCNT
000276   00   29   CONTINUE
000277   00   785  CONTINUE
000278   00   C    NEXT LINE ADDED FOR ARMY RESERVE POOLS, DEC 78
000279   00        GO TO LABLE
000280   00        END

END LLT.


@HDG,P  ••••••  READAT/HL  ••••••


@LLT,L 75PRINT1.READAT/HL
ELT007 S73RIA 02/27/79 14:21:17 (0,)
000001   00          COMPILER (XM = 1)
000002   00        SUBROUTINE READAT
000003   00          INCLUDE PROC
000004   00        COMMON/SWATCH/ IWARF,IUSSW,NSUPDV
000005   00        COMMON/SLOG  / PCTLOG(10,2),JSUB(3,4,2)
000006   00        COMMON/GRABAX/POOLX(5,5,3),PEOPLX(10,3),DAVAIX(5,3),AVAILX(5,3)
000007   00   C  ••••    WCAA DEC 75 GOLUB    ••••
000008   00             COMMON/SUPDEG/POLD(2),PAMMOD(2),POTHRD(2)
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000066  00        COMMON/OPTION/LERRSW,LSUMRY,LFREQ,LUNTSM(3,2)
000067  00        COMMON/RARM/NRARMY,RARMY(3)
000068  00        COMMON/RCORP/NRCORP,RCORPS(169)
000069  00        COMMON/REINFD/NARIFP,MXRIFP,BTRFEE,RFDVB(20),RFDVR(20)
000070  00        INTEGER BTRFEE
000071  00  C     COMMON/TERAN/MINPEN,TERNDF,TERN(4167)
000072  00        COMMON/TERAN/MINPEN,TERNDF                    @JAN14 75 BANKS
000073  00         DIMENSION BARINT(3),RARINT(3),BMINT(3,50),RMINT(3,50)
000074  00        EQUIVALENCE (BMINT,DINTB),(RMINT,DINTR)
000075  00  C  PACKED LOGISTICS AND PREPOSITIONED RESOURCES
000076  00        DIMENSION PRLOGB(71),PRLOGR(71),PRELOG(71,2)     @CAA FEB 76 GOLUB
000077  00        EQUIVALENCE (PRLOGB(1),PRELOG(1,1)),(PRLOGR(1),PRELOG(1,2))
000078  00  C     COMMON/LOGWP/ IWPOOL(3150),BTLWEE,BTLGLW            @19SEP 73DOC
000079  00        COMMON/LOGWP/ BTLWEE,BTLGLW            @31OCT 73ALL
000080  00        INTEGER BTLWEE,BTLGLW
000081  00  C   P,Q, AND N MODIFIERS BY SIDE
000082  00        COMMON/PQN/POLN(2),AMMON(2),OTHERN(2),PINF(2,2),QINF(2,2)
000083  00  C  WEAPON FILE
000084  00  C     COMMON/WPNFIL/ IWPNFL(2187),BTWPEE,BTLGWP          @26JUL73DOC
000085  00  C     COMMON/WPTYFL/ WPNBUF(64,12,8)     @ 17JAN74ALLISON
000086  00  C  STATUS FILE
000087  00  C     COMMON/BDEDIV/BTSFEE,BTLGSF,ISFILE(2938)) @26JUL73DOC
000088  00  C
000089  00  C     ABOVE WAS REPLACED ON 24 SEP 74, JBANKS
000090  00  C
000091  00  C  WEAPON TYPE,COUNT
000092  00        COMMON/IWPNTP/NTNKS(2),NLARMR(2),NHELOS(2),NANTNK(2)
000093  00  C  COUNT OF BLUE BDES=ICTBDE
000094  00  C  COUNT OF RED DIVS=ICTDIV
000095  00        COMMON/BDECNT/ICTBDE,ICTDIV
000096  00        COMMON/BBDEBD/BDTHRH(2,10)
000097  00        COMMON/ARTKFT/ARTK1(2),ARTK4(2),ARTK5(12,2,2),ARTK2(2),        A744   6
000098  00       .              ARTK3(8,2,2),ARTK6(2),BNAS(2)          @ARTINTEL
000099  00  C ARTK1(SIDE)=DS ARTY BN VULNERABILITY COEFFICIENT                   A744   8
000100  00  C ARTK4(SIDE)=STATIC ENGAGEMENT PERSONNEL VULNERABILITY FACTOR
000101  00  C ARTK5(WPN,TANK OR APC,SIDE)=DAMAGE COEFFICIENT OF ENEMY AT OR ALA  A744  10
000102  00  C ARTK6(SIDE)=RESERVE UNIT PERSONNEL VULNERABILITY FACTOR
000103  00  C ARTK2(SIDE)=PERSONNEL VULNERABILITY FACTOR FROM ENEMY CB FIRE      A744  11
000104  00  C ARTK3(TUBE TYPE,AT OR ALA,SIDE)=VULNERABILITY FACTOR OF CANNON TYPE N A744  12
000105  00  C                                 TO ENEMY AT OR ALA FIRE POWER      A744  13
000106  00  C BNAS(SIDE)=AREA IN SQUARE METERS OCCUPIED BY ONE ENEMY BN IN AVERAGE A744  14
000107  00  C            TERRAIN IN AN ASSEMBLY AREA X10E-5.  THIS RELATES BN AREA A744  15
000108  00  C            TO LETHAL AREA IN THE IFP CALCULATION.                  A744  16
000109  00  C                                                                    A744  17
000110  00  C     *** GHOST CREWS ***
000111  00  C
000112  00  C           ********** WEAK ON-LINE DIVISION DATA **********
000113  00  C
000114  00  C    NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000115  00        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000116  00       .              RPOOL(9,3,6),RPOOLC(6)
000117  00  C     INTEGER RPOOLC,RPOOL     @CANCELLED (NOT NEEDED) AUG 78
000118  00        REAL MARGIN
000119  00  C
000120  00  C  IDEFSW = DEFENSE SWITCH
000121  00  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DIFF IS
000122  00  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
```

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000114   00   C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000115   00         COMMON/IWKDYS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000116   00        *               RPOOL(9,3,6),RPOOLC(6)
000117   00   C     INTEGER RPOOLC,RPOOL    @CANCELLED (NOT NEEDED) AUG 78
000118   00         REAL MARGIN
000119   00   C
000120   00   C  IDEFSW = DEFENSE SWITCH
000121   00   C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000122   00   C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000123   00   C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000124   00   C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000125   00   C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000126   00   C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000127   00   C
000128   00   C  LISTPL(9,6)
000129   00   C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000130   00   C           9 = DIV INDEXES OF WEAK DIVS
000131   00   C           6 = PARENT ARMY HQ
000132   00   C  LISTLC(6)
000133   00   C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000134   00   C  RPOOL(9,3,6)
000135   00   C           LIST OF REPLACEMENT DIVS
000136   00   C           9 = DIV INDEXES
000137   00   C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000138   00   C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000139   00   C           6 = PARENT ARMY HQ
000140   00   C  RPOOLC(6)
000141   00   C           COUNT OF ARMY RESERVE DIVS
000142   00   C---------READ OPTIONS AND LIMITS
000143   00         READ (101) IWARTM,IAPT,ICPA,IDPC,LSUMRY,LFREQ,
000144   00        *           LUNTSM,LERRSW,ITOSSW,ISUPSW          @CAA APR 76
000145   00         GRNDPR=1
000146   00         AIRPR=1
000147   00         LUNTSM(3,1)=1
000148   00         LUNTSM(3,2)=1
000149   00         IOPT=IDPC*ICPA*IAPT
000150   00   C
000151   00   C---------READ FEBA DATA
000152   00         READ(101) NMINI,MMSDVB,MMSDVR,FDRATO,MAXFLK,FEBA,NDPNT,OMEGA,
000153   00        *FMTHRS,FMMOD,IPOLMX,IDEFSW,MARGIN,WOLDTH          @WK 27
000154   00   C
000155   00   C---------READ TERRAIN DATA
000156   00         READ (101) TERNDF,MINPEN,TERN,LNPHSE          @PHASE 10JAN
000157   00   C
000158   00   C---------READ BLUE UNIT DATA
000159   00         READ(101) BARINT                  @ARTY774  156
000160   00         READ(101) FRACOR                  @CAA JAN 76 GOLUB
000161   00         READ (101) INMSNB,NBNTPB,BMNIFP,BMINT
000162   00         DO 3000 I=1,3
000163   00           DINTB(I,NBNTPB+I)=BARINT(I)
000164   00    3000 CONTINUE
000165   00         BTBDEE=BSBDNB+NBNTPB*BLBDNB
000166   00         BTBVTE=BTBVEE+3*BTBDEE
000167   00         READ(101) NBARMY,NBCORP,NBDIV,BARMY,BCORPS,BDIV,IUS,IUSC
000168   00         READ (101) CRHELI,DVHELI,HELIFP      @  ,BIGHEL
000169   00   C
000170   00   C---------READ RED UNIT DATA
```

```
000285       00          END

END ELT.

@HDG,P  ••••••  RECONA  ••••••

@ELT,L 75PRINT1.RECONA
ELT007 573RIA 02/27/79 14:21:22 (12,)
000001       08              COMPILER (XM=1)
000002       08              SUBROUTINE RECONA(JARMY,NCRPA,IRCRP,ICAND)
000003       08    C
000004       08    C     THIS ROUTINE RECONSTITUTES AS MANY BLUE DIVS TO CORPS RESERVE
000005       08    C      AS NEEDED TO REPLACE RUPTURED BORDER DIVISIONS.
000006       08    C
000007       08              COMMON/BARM/NBARMY, BARMY(15)
000008       08             COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6)
000009       08    C
000010       08    C  IDEFSW = DEFENSE SWITCH
000011       08    C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000012       08    C             GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000013       08    C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=9)
000014       08    C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000015       08    C             AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000016       08    C             RPOOL DIV WILL REPLACE THE ON-LINE DIV
000017       08    C
000018       08    C  LISTPL(9,6)
000019       08    C             LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000020       08    C             9 = DIV INDEXES OF WEAK DIVS
000021       08    C             6 = PARENT ARMY HQ
000022       08    C  LISTLC(6)
000023       08    C             COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000024       08              COMMON/BCORP/NBCORP, BCORPS(82)
000025       08              COMMON/BORDIV/INFORT(70)
000026       08              COMMON/SMALST/SMIFP,ISMFD
000027       08             COMMON/CRDATA/ICORPS,MSNCR,MINICR(2),ARTYCR,ACCR,ICRRT,NDIV,IRDIV,
000028       08            •              ISPT,KPOSN,IDIV(5),MINIDV(2,5),DMIFP(3,5),DAIFP(5),
000029       08            •              NACSW(5),NARTY(5),NHELPT(5)
000030       08              DIMENSION DRIFP(5)
000031       08             INTEGER ACCR
000032       08              INCLUDE BTARMY
000033       08              INCLUDE BTCORP
000034       08              DIMENSION ICMT(5)
000035       08    C
000036       08    C     INITIALIZE ICMT:
000037       08              DO 20 J=1,NCRPA
000038       08           20 ICMT(J) = 0
000039       08    C     GET STORAGE LOCATION OF FIRST CORPS OF THIS ARMY:
000040       08              CALL CINDEX(JARMY, BTAREE, INDEXA, LOVERA)
000041       08              LOVERA = LOVERA + BSARCI
000042       08             LOVRAI = LOVERA
000043       08    C     CHECK RESERVE CORPS:
000044       08              IF(IRCRP.EQ. 0) GO TO 100
000045       08              LOVERA = LOVERA +(IRCRP-1)*BLARCI
000046       09              CALL PIK(BARMY(INDEXA),LOVERA,BLARCI,ICORPS)
000047       08              CALL CINDEX(ICORPS, BTCREE, INDEXC, LOVERC)
```

```
000048  08            CALL PIK(BCORPS(INDEXC),LOVERC+BSCRND,BLCRND,NDIV)
000049  08      C     ANY DIVISIONS TO SPARE?
000050  08            IF(NDIV .LE. 1) GO TO 100
000051  08            CALL PIK(BCORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,IRDIV)
000052  08            CALL PIK(BCORPS(INDEXC),LOVERC+BSCRRT,BLCRRT,ICRRT)
000053  08      C     RESERVE DIV WITH COMMITMENT PLAN?
000054  08            IF(IRDIV.NE.0 .AND. ICRRT.NE.0) GO TO 100
000055  08      C     RESERVE DIV WITHOUT COMMITMENT PLAN;
000056  08            IF(IRDIV.NE.0) GO TO 50
000057  08      C     CREATE CORPS RESERVE (TO BE REMOVED BY FLEX);
000058  08            CALL PAK(BCORPS(INDEXC),LOVERC+BSCRRD,BLCRRD,NDIV)
000059  08            CALL PAK(BCORPS(INDEXC),LOVERC+BSCRRT,BLCRRT,0)
000060  08       50 ICAND = ICAND -1
000061  08      C     ICAND IS THE NUMBER OF DIVS STILL NEEDED.
000062  09       100 WRITE(17,62)ICAND,IRCRP,NCRPA,ICMT,(LISTPL(J,JARMY),J=1,9)
000063  09        62 FORMAT(' **RECONA** ICAND, IRCRP, NCRPA, ICMT, LISTPL(',1714)
000064  08           IF(ICAND .LE. 0) GO TO 999
000065  08            CMAX = 0.
000066  08            LOVERA = LOVRA(
000067  08            IDCORP = 0
000068  08      C     GO THRU THE CORPS IN ARMY JARMY;
000069  08            DO 201 J=1,NCRPA
000070  08      C     DON'T CHECK RESERVE CORPS AGAIN;
000071  08            IF(J .EQ. IRCRP) GO TO 200
000072  08      C     DON'T CHECK CORPS ALREADY ELIMINATED (ICMT =1);
000073  08            IF(ICMT(J) .NE. 0) GO TO 200
000074  08            CALL PIK(BARMY(INDEXA),LOVERA,BLARC(,ICORPS)
000075  08            CALL PIKBC
000076  12      C           WRITE(17, 74) ICORPS,IRDIV,ICRRT,NDIV
000077  12      C     74 FORMAT(10X,'ICORPS, IRDIV, ICRRT, NDIV(',4(10)
000078  08      C     DOES CORPS ALREADY HAVE A RESERVE DIV?
000079  08            IF(IRDIV.EQ.0) GO TO 120
000080  08            ICMT(J) = 1
000081  08      C     DOES RESERVE ALREADY HAVE A COMMITMENT PLAN?
000082  11             IF(ICRRT.EQ.0) GO TO 50
000083  11            CALL CINDEX(ICORPS,BTCREE,INDEXC,LOVERC)
000084  11           CALL PAK(BCORPS(INDEXC),LOVERC+BSCRRT,BLCRRT,0)
000085  08            GO TO 50
000086  08      C     ANY DIVISIONS TO SPARE?
000087  08       120 IF(NDIV .LE. 1) GO TO 130
000088  08            CALL RTVFPC(MINICR(1),MINICR(2),1)
000089  08            MSNCR = 1
000090  08            CALL CALCFP(CRIFP, 0, 1)
000091  09            WRITE(17, 85) ISMFD,SMIFP
000092  09        85 FORMAT(10X,'ISMFD,SMIFP(', 110,F10.4)
000093  08      C     IS THERE A NON-BORDER DIV AVAILABLE IN THIS CORPS?
000094  08            IF(ISMFD .GT. 0) GO TO 140
000095  08      C     NO DIV AVAILABLE FROM THIS CORPS;
000096  08       130 ICMT(J) = 1
000097  08            GO TO 200
000098  08      C     IS THIS CORPS THE STRONGEST?
000099  08       140 IF(SMIFP .LE. CMAX) GO TO 200
000100  08      C     YES - SAVE ID OF THIS CORPS;
000101  08       150 IDCORP = ICORPS*6 +J
000102  08            CMAX = SMIFP
000103  12       200 CONTINUE
000104  12      C 200 WRITE(17,96)(CMT(J),IDCORP,CMAX
```

```
12    C  96 FORMAT(10X,'ICMT(J), IDCORP, CMAX)',2I10,F10.4)
08    C     GET STORAGE LOCATION OF NEXT CORPS!
09           LOVERA = LOVERA +BLARC!
08      201 CONTINUE
08    C     DID WE FIND ANY CORPS?
08              IF(IDCORP .EQ. 0) GO TO 999
08    C     YES - PUT A DIV FROM THAT CORPS IN RESERVE!
08              J = MOD(IDCORP,6)
08              ICMT(J) = 1
08              ICORPS = IDCORP/6
08              CALL PIKBC
08              CALL RTVFPC(MINICR(1),MINICR(2),1)
08              MSNCR = 1
08              CALL CALCFP(CRIFP, 0, 1)
08              CALL RECOND(1)
08    C     SCRATCH THIS NEW CORPS RESERVE DIV FROM WOLD CANDIDATE LIST!
08              JCAND = 0
08           NCAND = LISTLC(JARMY)
08              DO 280 J=1,NCAND
08            IF(LISTPL(J, JARMY) .EQ. IDIV(IRDIV)) JCAND = 1
08              IF(JCAND .EQ. 1) LISTPL(J,JARMY) = LISTPL(J+1, JARMY)
08      280 CONTINUE
08              IF(JCAND .EQ. 1) LISTLC(JARMY) = NCAND -1
08    C     RECOMPUTE ALLOCATIONS TO DIVS OF CORPS ICORPS!
08              DO 300 I=1,NDIV
08              IF(IRDIV .EQ. I) GO TO 300
08              CALL CALCFP(DRIFP(I), 1, I)
08      300 CONTINUE
08              IARTY = ARTYCR*10.
08              CALL ALLOC(IARTY,DRIFP,NARTY,NDIV)
08              CALL ALLOC( ACCR,DRIFP,NACSQ,NDIV)
08              CALL ALLOC( 100,DRIFP,NHELPT,NDIV)
08              CALL PAKBC
09              GO TO 50
08      999 RETURN
08              END
```

END ELT.

@HDG,P •••••• RECOND/HL ••••••

@ELT,L 75PRINT1.RECOND/HL
ELT007 S73R1A 02/27/79 14:21:24 (5,)

```
01             COMPILER (XM = 1)
01             SUBROUTINE RECOND (ISIDE)
01    C
01    C---------RESERVE RECONSTITUTION CONTROL ROUTINE
01    C
04    C     NEXT 2 LINES ADDED TO KEEP BORDER DIV ON LINE, SEP 78
01           COMMON/BORDIV/INFORT(70)
04           COMMON/SMALST/SMIFP,ISMFD
01           COMMON/CRDATA/ICORPS,MSNCR,MINICR(2),ARTYCR,ACCR,ICRRT,NDIV,IRDIV,
01         •                ISPT,KPOSN,IDIV(5),MINIDV(2,5),DMIFP(3,5),DAIFP(5),
01         •                NACSQ(5),NARTY(5),NHELPT(5)
01           INTEGER ACCR                                         @ARTY74   352
```

```
000013  01        DIMENSION LOCDIV(2),DRIFP(2)
000014  01        COMMON/PSYCH/RDVST(5)
000015  01        COMMON/RCORP/NRCORP,RCORPS(164)
000016  01         INCLUDE BTCORP
000017  01  C
000018  01  C  IF ISIDE GREATER THAN 2 THIS CALL IS FOR A RED DECIMATED DIV
000019  01        IR=0
000020  01        IF (ISIDE.LT.3) GO TO 100
000021  01  C  INDIV=INDEX OF IDIV ARRAY DECIMATED RED UNIT
000022  01        INDIV=ISIDE-2
000023  01        ISIDE=2
000024  01        IR=INDIV
000025  01        IR1=IRDIV
000026  01        IRDIV=INDIV
000027  01        IR2=ICRRT
000028  01        GO TO 250
000029  01  C
000030  01  C---------CHOOSE RESERVE DIVISION (DIVISION W/LOWEST IFP)
000031  05  C     NEXT 2 LINES ADDED TO KEEP BORDER DIV ON LINE, OCT 78
000032  04    100 IRDIV = ISMFD
000033  05        IF(IRDIV .EQ. 0) GO TO 9999
000034  04  C 100 DMNIFP=1000000.
000035  04  C     DO 3000 I=1,NDIV
000036  04  C       DIFP=DMIFP(MSNCR+1,I)+DAIFP(I)
000037  04  C       IF (DIFP.GE.DMNIFP) GO TO 3000
000038  04  C      DMNIFP=DIFP
000039  04  C       IRDIV=I
000040  04  C3000 CONTINUE
000041  01        IR1 = -1    @ 23 OCT 73 ALL'SN
000042  01  C
000043  01  C---------LOCATE NEIGHBORING DIVISIONS
000044  01  250    IDIF=-1
000045  01        DO 3100 I=1,2
000046  01          LOCDIV(I)=0
000047  01          IF (MINIDV(I,IRDIV).EQ.MINICR(I)) GO TO 2000
000048  01          N=3-I
000049  01          MINIVL=MINIDV(I,IRDIV)+IDIF
000050  01          DO 3200 J=1,NDIV
000051  01        IF(J.EQ.IR1.OR.J.EQ.IRDIV) GO TO 3200
000052  01            IF (MINIVL.NE.MINIDV(N,J)) GO TO 3200
000053  02  C     NEXT 3 LINES ADDED TO KEEP BORDER DIV FROM SPREADING, SEP 78
000054  02        IF(ISIDE .NE. 1) GO TO 3180
000055  03        IR2 = IDIV(J)
000056  02        IF(INFORT(IR2) .NE. 0) GO TO 2000
000057  02   3180   LOCDIV(I)=J
000058  01            GO TO 2000
000059  01   3200   CONTINUE
000060  01   2000   IDIF=-IDIF
000061  01   3100 CONTINUE
000062  01  C
000063  01  C---------SEE WHICH DIVISION TAKES OVER
000064  01        IF (LOCDIV(1).NE.0) GO TO 2100
000065  01   2902 INDDIV=2
000066  01        GO TO 4000
000067  01   2100 IF (LOCDIV(2).NE.0) GO TO 2200
000068  01   2901 INDDIV=1
000069  01        GO TO 4000
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000127       01          END

END ELT.

@HDG,P  •••••• REPLST/REDMOV ••••••

@ELT,L 75PRINT1.REPLST/REDMOV
ELT007 S73R1A 02/27/79 14:21:25 (2,)
000001       00          COMPILER (XM=1)
000002       00    C     NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000003       00          SUBROUTINE REPLST(IPOOL,IPOOLC,ISIDE)
000004       00    C     NEXT LINE ADDED FOR RED SIDE, DEC 78
000005       00          DIMENSION IPOOL(9,3,6),IPOOLC(1)
000006       00            INCLUDE PROC
000007       00    C
000008       00    C  THIS SUBROUTINE SEARCHES THE ARMY RESERVE POOL FOR THE STRONGEST
000009       00    C  DIV IN THE ARRAY WITHOUT A COMMITTMENT PLAN
000010       00    C
000011       00    C
000012       00    C            •••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000013       00    C
000014       00    C
000015       00          COMMON/WHOAMI/IAMWHO(3)
000016       00    C
000017       00    C
000018       00          IAMWHO(1)=0
000019       00          IARMY=IAMWHO(3)
000020       00          ICNT=IPOOLC(IARMY)
000021       01    C     NEXT 2 LINES MODIFIED FOR BETTER DIAGNOSTICS, JAN 79
000022       01          ISELT=0
000023       01          IF (ICNT.LE.0) GO TO 101
000024       00    C  CHECK ENTRIES
000025       00          STRG=0.0
000026       00    C     WRITE(17,2) ICNT
000027       00    C   2 FORMAT(20X,'REPLST CHECKING',I2,' RESERVE DIVS')
000028       00    C     •   20X,' WILL SELECT STRONGEST DIV W/O COMMITMENT PLAN')
000029       00          DO 100 I=1,ICNT
000030       00          IF (IPOOL(I,1,IARMY).LE.0.0) GO TO 100
000031       00          IF(IPOOL(I,2,IARMY).GT.0) GO TO 100
000032       00    C     •• RESERVE DIV HAS NO COMMITMENT PLAN. SEE IF ITS THE STRONGEST
000033       00    C     ••• CHANGE 19 APRIL 77
000034       00          INDIV=IPOOL(I,1,IARMY)
000035       00          IF (ICNT.EQ.1) GO TO 50
000036       00    C  ADD BDE
000037       00    C     NEXT LINE MODIFIED FOR RED SIDE, DEC 78
000038       00          CALL BLDIFP(INDIV,CUMIFP,STATE,BBMIFP,ISIDE)
000039       00    C     FIRPOW=(BBMIFP+CUMIFP)•STATE   @REPLACED SEP 78
000040       00          FIRPOW= CUMIFP•STATE•0.01 •BBMIFP
000041       00          IF (STRG.GT.FIRPOW) GO TO 100
000042       00          STRG=FIRPOW
000043       00    50    ISELT=I
000044       00    100   CONTINUE
000045       01      101 IF(ISELT.LE.0) WRITE(17,3)
000046       00     3    FORMAT(25X,'NO RESERVE DIVS EXIST W/O COMMITMENT PLAN')
000047       02    C     IF(ISELT.GT.0) WRITE(17,4) IPOOL(ISELT,1,IARMY)
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```
000048        02    C9    FORMAT(25X,'RESERVE DIV',I3,' SELECTED')
000049        00          IF (ISELT.LE.0) RETURN
000050        00          IAMWH0(I)=ISELT
000051        00          RETURN
000052        00          END

END ELT.


WHDG,P  •••••• RESLOS/RMAINT ••••••


WELT,L 75PRINT,RESLOS/RMAINT
ELT007 S73RIA 02/28/79 14:21:27 (2,)
000001        00          COMPILER (XM = 1)
000002        00          SUBROUTINE RESLOS
000003        00            INCLUDE PROC
000004        00           COMMON/IOUNIT/IO1,IO2,IO6,IO9
000005        00          COMMON/CASCOM/ TOTL(4,2),FRNT(2),WHOLE,IENT,IOPEN,VKIA,VWIA,
000006        00         •               DNBI,EATCAS(2),CWSURV,CREWOK,IDAT(4,4),
000007        00         •               WPNCRW,NGAGMT,IFEBCG,IS,IESD
000008        02    C     COMMON/TRQMNS/RQMNTS(54,2)
000009        00              COMMON/USC/ IUS(70)
000010        00              COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000011        00    C  RESERVE UNIT LOSSES AND EXPENDITURES
000012        00    C
000013        00    C
000014        00    C  INDEX OF RESERVE BLUE BDES AND RED DIV=IRESUT(50,2).
000015        00    C  COUNT OF RESERVE BLUE BDES AND RED DIVS= NRESUT(2)
000016        00          COMMON/RUNITS/IRESUT(50,2,2),NRESUT(2)
000017        00          COMMON/IWPNTP/NTNKS(2),NLARMR(2),NMELOS(2),NANTNK(2)
000018        00          COMMON/LOGC/EQPMNT(5,3,2),HOSPDL(2),PERTPL(2),DNBIKL(2),WIAHSP(2),
000019        00         • DNBIHP(2),PNBLOS(2),PRCASL(9,2),PRKIA(9,2),PRWIA(9,2),ASSIM(10,2)
000020        00          COMMON/DAMAGD/HOSP(4),HOSPIN(20,4),REPAIR(30,2)
000021        00          COMMON/PTOHP/PWIAHP(2),PDNBIH(2)
000022        00    C  20 THEATER CYCLES FOR MAX DELAY
000023        00    C  TANKS BY TYPE 1-12
000024        00    C  13-24 LIGHT ARMOR BY TYPE
000025        00    C  25-29 HELICOPTERS BY TYPE
000026        00    C
000027        00          COMMON/REM/ARTYMB(3),ARTYMR,TOTGSB(3),TOTGSR(3),RMCASB,RMCASR
000028        00    C  TOTGSB,TOTGSR=TOTAL GS ARTY BNS BY SIDE UNASSIGNED DS ROLE
000029        00    C  RMCASB,RMCASR=TOTAL CAS SQUADRONS BY SIDE UNASSIGNED DS ROLE
000030        00          COMMON/ARTKFT/ARTK1(2),ARTK4(2),ARTK5(12,2,2),ARTK2(2),
000031        00         •              ARTK3(8,2,2),ARTK6(2),BNAS(2)
000032        00    C ARTK6(SIDE)= RESERVE UNIT PERSONNEL VULNERABILITY FACTOR
000033        00    C ARTK5(WPN,TANK OR APC,SIDE)=DAMAGE COEFFICIENT OF ENEMY AT OR ALA
000034        00    C BNAS(SIDE)=AREA IN SQUARE METERS OCCUPIED BY ONE ENEMY BN IN AVERAGE
000035        00    C             TERRAIN IN AN ASSEMBLY AREA X10E-5.  THIS RELATES BN AREA
000036        00    C             TO LETHAL AREA IN THE IFP CALCULATION.
000037        00    C
000038        00    C                   •••• WETZEL CHANGES 2 MAY 77 ••••
000039        00          COMMON/WETZEL/JFL,PSHOP(5,29,3),PCAP(3,3),PDELAY(3,3),REPARE(29,3)
000040        00         •, RPCAP(3)
000041        00    C     PREVIOUS LINE ADDED FOR RED MAINTENANCE, NOV 78
000042        00          INTEGER PDELAY
000043        00    C    NEXT 2 LINES ADDED FOR AMMO BY WPN TYPE, SEPT 77
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```
000215   01          XX= WR * WPNHIT -WPNDST
000216   01          REPAIR(IR,IS)=XX *REPAIR(IR,IS)
000217   01          IF(IS.EQ.1) REPARE(IR,IBFLAG)=REPARE(IR,IBFLAG)+XX
000218   01  C       NEXT 7 LINES CANCELLED FOR NEW RED MAINTENANCE, NOV 78
000219   01  C       IF(IS.EQ.1) GO TO 161
000220   01  C       IDL=EQPMNT(1,K,IS)+1
000221   01  C       IF (IDL.GT.20) IDL=20
000222   01  C       QUANTM=EQPMNT(5,K,IS)=SHOP(IDL,IR,IS)
000223   01  C       QUANT=AMIN1(QUANTM,REPAIR(IR,IS))
000224   01  C       SHOP(IDL,IR,IS)=SHOP(IDL,IR,IS)+QUANT
000225   01  C       REPAIR(IR,IS)=REPAIR(IR,IS)-QUANT
000226   01  CC ADD CREW PERSONNEL TO PERSONNEL
000227   01  C161    CONTINUE
000228   00              IZ=4*(IS-1)+ICAT
000229   00           STAFIL(2,IS)=STAFIL(2,IS)+BREAK*WPNBUF(1,J,IZ)
000230   00           POL=POL+STAFIL(INDEX+1,IS)*WPNBUF(42,J,IZ)
000231   00   C     NEXT 2 LINES MODIFIED FOR AMMO BY WPN TYPE, SEPT 77
000232   00           RESAMO(K,J)= STAFIL(INDEX+1,IS)*WPNBUF(5),J,IZ)
000233   00           AMMO=AMMO+RESAMO(K,J)
000234   00           OTHER=OTHER+STAFIL(INDEX+1,IS)*WPNBUF(62,J,IZ)
000235   00           IZ=4*(IS-1)+ICAT
000236   00           ACTUAL=ACTUAL+STAFIL(INDEX+1,IS)*WPNBUF(1,J,IZ)
000237   00           GO TO 200
000238   00   90      STAFIL(INDEX+1,IS)=0.0
000239   00   200     CONTINUE
000240   00   500     CONTINUE
000241   00   C  ADD CREWS WIA, NOT HOSP.   ADD CREWS SURVIVING.
000242   00           STAFIL(2,IS)=STAFIL(2,IS) + CWSURV * VWIA*(1.-WIAHSP(IS))
000243   00           ACTUAL=ACTUAL+STAFIL(2,IS)
000244   00   C    COMPUTE DNBI AND PERSONNEL CASUALTIES FOR RESERVE UNIT
000245   00           DNBI=ACTUAL*PNBLOS(IS)/100.0
000246   00           DNBIK=DNBI*DNBIKL(IS)
000247   00           XP=-1.*ARTK6(IS)*EAPART*BNAS(IS)
000248   00   C     NEXT 3 LINES ADDED FOR K-FACTOR MULT. BY ENGT TYPE, OCT 77
000249   00   C       IF (IS .EQ. 2) GO TO 249
000250   00   C       FAUST(9) = FAUST(9) +EAPART*BNAS(IS)
000251   00   C       NFAUST(9) =NFAUST(9) +1
000252   00     249 POPL=PERS-DNBI
000253   00           PRCAS=(1.-EXP(XP)) * POPL
000254   00               RATIO(5)=XLTOT/EAPART
000255   00               RATIO(6)=1.0-RATIO(5)
000256   00           PKIA=PRCAS*PRKIA(9,IS)
000257   00           PWIA=PRCAS*PRWIA(9,IS)
000258   00           PCMIA=PRCAS-PKIA-PWIA
000259   00           PRCKIA = PKIA + VKIA
000260   00           PRCWIA = PWIA + VWIA
000261   00             XL(5,5,IS)=XL(5,5,IS)+PRCAS*RATIO(5)
000262   00             XL(5,6,IS)=XL(5,6,IS)+PRCAS*RATIO(6)
000263   00           CBTLOS(IENT,1) = CBTLOS(IENT,1) + PRCAS
000264   00   C  COMPUTE PERSONNEL WIA SENT TO HOSPITAL
000265   00           HWIA = PRCWIA * WIAHSP(IS)
000266   00           WRIH = HWIA * PWIAHP(IS)
000267   00   C  CONSUMPTION POL,AMMO,AND OTHER SUPPLIES
000268   00   C
000269   00   C  POL
000270   00           POLEX=AMIN1(STAFIL(35,IS)*STAFIL(2,IS)*POL,STAFIL(26,IS))
000271   00           STAFIL(26,IS)=STAFIL(26,IS)-POLEX
```

```
000329  00        PLREST(1) = PLREST(1) *PKIA
000330  00        PLREST(2) = PLREST(2) *PWIA
000331  00        PLCREW(2) = PLCREW(2) *VWIA
000332  00        PLCREW(1) = PLCREW(1) *VKIA
000333  00           PERLOS(1,IB)=PRCKIA *PERLOS(1,IB)
000334  00           PERLOS(2,IB)=PERLOS(2,IB) + HWIA
000335  00          PERLOS(4,IB)=PERLOS(1,IB)+PERLOS(2,IB)+PERLOS(3,IB)
000336  00           PERLOS(5,IB)=PERLOS(5,IB) + DNBIK
000337  00           PERLOS(6,IB)=PERLOS(6,IB) + HDNBI
000338  00           PERLOS(7,IB)=PERLOS(5,IB)+PERLOS(6,IB)
000339  00           PERLOS(8,IB)=PERLOS(1,IB) + PERLOS(5,IB)
000340  00           PERLOS(9,IB)=PERLOS(9,IB) + PCASH
000341  00           PERLOS(10,IB)=PERLOS(10,IB) + HWIA+HDNBI-PCASH
000342  00           PERLOS(11,IB)=PERLOS(11,IB) + HWIA+HDNBI
000343  00           PERLOS(12,IB)=PERLOS(12,IB) + PRCWIA -HWIA +DNBI
000344  00        *                                - DNBIK - HDNBI
000345  00     C ------------ PROVIDE PARTITION LOSSES TO POSTPROCESSOR
000346  00        CRLOX(1,1,IB)=CRLOX(1,1,IB)+WRIM
000347  00        CRLOX(1,2,IB)=CRLOX(1,2,IB)+PRCKIA+HWIA-WRIM
000348  00        CRLOX(1,3,IB)=CRLOX(1,3,IB)+DRIM
000349  00        CRLOX(1,4,IB)=CRLOX(1,4,IB)+HDNBI+DNBIK-DRIM
000350  00        CRLOX(2,4,IB)=CRLOX(2,4,IB)+POLEX
000351  00        CRLOX(3,4,IB)=CRLOX(3,4,IB)+AMMOEX
000352  00        CRLOX(4,4,IB)=CRLOX(4,4,IB)+OTHREX
000353  00     4000  CONTINUE
000354  00     5000  CONTINUE
000355  00     C                  **** WETZEL CHANGES 2 MAY 77 ****
000356  00     C     COMMON/WETZEL/ PSHOP(5,29,3),PCAP(3,3),PDELAY(3,3),REPARE(29,3)
000357  00     C     INTEGER PDELAY
000358  00           DO 777 K=1,3
000359  00           IR1=IRDAT(1,K)
000360  00           IR2=IRDAT(2,K)
000361  00               IDELAY=EQPMNT(1,K,2)+1
000362  00               IF(IDELAY.GT.20) IDELAY=20
000363  00     C     NEXT 16 LINES ADDED FOR RED MAINTENANCE, NOV 78
000364  00           TOTQUE = 0.
000365  00           TOTUSE = 0.
000366  00           DO 370 IR=IR1,IR2
000367  00           TOTQUE = TOTQUE +REPAIR(IR,2)
000368  00           TOTUSE = TOTUSE +SHOP(IDELAY,IR,2)
000369  00       370 CONTINUE
000370  00           TOTCAP = RPCAP(K) -TOTUSE
000371  00           IF(TOTCAP .LE. 0.001) GO TO 376
000372  00           DO 372 IR=IR1,IR2
000373  00           IF(REPAIR(IR,2) .LE. 0.) GO TO 372
000374  00           PRORAT = REPAIR(IR,2)/TOTQUE
000375  00           SHOPMX = PRORAT*TOTCAP
000376  00           SHOPIN = AMIN1(SHOPMX,REPAIR(IR,2))
000377  00           SHOP(IDELAY,IR,2) = SHOP(IDELAY,IR,2) +SHOPIN
000378  00           REPAIR(IR,2) = REPAIR(IR,2) -SHOPIN
000379  00       372 CONTINUE
000380  00       376   IDELAY=EQPMNT(1,K,1)+1
000381  00               IF(IDELAY.GT.5) IDELAY=5
000382  00               DO 776 IB=1,3
000383  00               TOTQUE=0.
000384  00               TOTUSE=0.
000385  00                   DO 770 IR=IR1,IR2
```

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000006       00          COMMON/AIRENV/KAIRSW(2)
000007       00              COMMON/PARTS/ CRLOX(5,4,3),XGAINX(5,3)
000008       00    C ------------ PARTITION PERSONNEL AVAILABILITY
000009       00          DIMENSION APEOPX(3)
000010       00          COMMON/GRABAX/POOLX(5,5,3),PEOPLX(10,3),DAVAIX(5,3),AVAILX(5,3)
000011       00    C   ••••
000012       00    C  POOL  1-5  THEATER CYCLE DELAYS FROM CURRENT THEATER CYCLE FOR
000013       00    C   RELEASE OF MEN,SUPPLIES AND WEAPONS••••
000014       00    C   PEOPLE  10 DIVISION CYCLES INTO WHICH PERSONNEL (POOL) CAN
000015       00    C  CAN BE ASSIMMULATED TO FRONT LINE BDES/DIVS
000016       00    C
000017       00          COMMON/DAMAGD/HOSP(4),HOSPIN(20,4),REPAIR(30,2)
000018       00          DIMENSION BLHOSP(20),KLOGF(61)
000019       00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC,IWARTM,IDPT,ISPC,ICPA,IAPT
000020       00    C  NTCYC=CURRENT THEATER CYCLE
000021       00    C  IDPT=NUMBER OF DIVISION CYCLES/THEATER CYCLE
000022       00    C
000023       00          COMMON/IOUNIT/IO1,IO2,IO6,IO9
000024       00          COMMON/LOGF/ILOGF(71)
000025       00          COMMON/LOGC/EQPMNT(5,3,2),HOSPDL(2),PERTPL(2),DNBIKL(2),WIAHSP(2),
000026       00         IDNBIHP(2),PNBLOS(2),PRCASL(9,2),PRKIA(9,2),PRWIA(9,2),ASSIMI(10,2)
000027       00          COMMON/REDCMN/ GAINS(45),JSUPLY
000028       00          COMMON/LOGWP/ BTLWEE,BTLGLN
000029       00          COMMON/ARTDAT/ IARTYP(2),ALNGS(3,2),NARTUB(2),NONDIV(2),
000030       00         •                NDIVGS(2),NASGRT(2)
000031       00    C  RESOURCE POL AMMO  OTHER  SUPPLIES DELAY TO FRONT LINES
000032       00          COMMON/RDL/RDLAY(6,2)
000033       00    C---------THEATER REQUIREMENT
000034       00          COMMON/TRQMNS/RQMNTS(54,2)
000035       00          COMMON/TRQMNX/RQMNTX(5,3)
000036       00    C                ••••  WETZEL CHANGES 2 MAY 77 ••••
000037       00          COMMON/WETZEL/JFL,PSHOP(5,29,3),PCAP(3,3),PDELAY(3,3),REPARE(29,3)
000038       00         •, RPCAP(3)
000039       00    C     PREVIOUS LINE ADDED FOR RED MAINTENANCE, NOV 78
000040       00          INTEGER PDELAY
000041       00    C        READ NEW MAINTENANCE CAPABILITY DATA
000042       00          READ(3,END=1) PCAP
000043       00          GO TO 3
000044       00     1    PRINT 2
000045       00     2    FORMAT(1HO,••• UNEXPECTED EOF ON MAINTENANCE FILE.  TILT ••••)
000046       00          RETURN 0
000047       00    C     NEXT LINE MODIFIED FOR RED MAINTENANCE, NOV 78
000048       00        3 READ(9, END=1) RPCAP
000049       00    C                END   •••• WETZEL CHANGES 2 MAY 77 ••••
000050       00    C
000051       00    C---------INFORM POST-PROCESSOR TAPE OF TYPE OF DATA TO FOLLOW
000052       00          CALL LABEL(16)
000053       00           DO 7 N=1,45
000054       00             GAINS(N) = 0.
000055       00        7  CONTINUE
000056       00           DO 78 N=1,20
000057       00               BLHOSP(N)=0
000058       00       78      CONTINUE
000059       00    C
000060       00    C         FOLLOWING IS TO CORRECT COMPILER PROBLEM
000061       00          L49 = 49
000062       00          L50 = 50
```

```
000346  00  C
000349  00                    GO TO 9000
000350  00  C
000351  00  C                      RED SIDE ONLY
000352  00  C
000353  00   250       APEOP = DAVAIL(1,IS)
000354  00             DO 200 J=2,10
000355  00    200   APEOP = APEOP + PEOPLE(J,IS)
000356  00         WRITE(102)APEOP,((POOL(K,J,IS),K=1, 5),J=1,54),
000357  00        *          ((SHOP(K,J,IS),K=1,20),J=1,30),
000358  00        *           (HOSPIN(K,IS),K=1,20)
000359  00  C
000360  00  C  MOVE HOSPIN STACK UP
000361  00   1155 DO 160 K=1,19
000362  00         HOSPIN(K,IS)=HOSPIN(K+1,IS)
000363  00         DO 156 J=1,30
000364  00         SHOP(K,J,IS)=SHOP(K+1,J,IS)
000365  00   156   CONTINUE
000366  00   160   CONTINUE
000367  00         HOSPIN(20,IS)=0.0
000368  00         DO 158 J=1,30
000369  00         SHOP(20,J,IS)=0.0
000370  00   158   CONTINUE
000371  00  C
000372  00  C  SPREAD  OUT OVER DIVISION CYCLES PER THEATER CYCLE
000373  00         DPT=1DPT
000374  00         DO 180 K=1,54
000375  00         IF (POOL(1,K,IS).GT.0.0) GO TO 177
000376  00         AVAIL(K,IS)=0.0
000377  00         GO TO 180
000378  00   177   AVAIL(K,IS)=POOL(1,K,IS)/DPT
000379  00   180   CONTINUE
000380  00  C
000381  00  C
000382  00   9000  CONTINUE
000383  00         RETURN
000384  00         END

END ELT.

@MDG,P  ****** STAMAT/HL ******

@ELT,L 75PRINT1.STAMAT/HL
ELT007 S7JRIA 02/27/79 14:21:36 (5,)
000001  01         COMPILER (XM = 1)
000002  01         SUBROUTINE STAMAT(IBDIV,WOTHF,ISIDE,NGAGMT)
000003  01           INCLUDE PROC
000004  01           COMMON/IOUNIT/IO1,IO2,IO6,IO9
000005  02  C    NEXT 5 LINES ADDED FOR BORDER DIVS, OCT 78
000006  05         DIMENSION BORDFP(5)/4*1.0,0.0001/
000007  01         COMMON/BORDIV/INFORT(70)
000008  01         COMMON/CAVBDE/IPCRP,INDIVB
000009  02         COMMON/SSLIMT/ILO,IHI
000010  02         COMMON/BUNKER/TANK1(600),TANK6(600)
000011  01  C  BUILD MATRIX 3 X 3 FROM STATUS FILE FOR OUTCOME

****** [illegible] ******
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000069  01          IF (NGAGMT.LT.1.OR.NGAGMT.GT.7) GO TO 50
000070  01  C
000071  01          GO TO 33
000072  01     29   DO 32 I=1,12                          @CAA JAN 76
000073  01          DO 31 J=1,3
000074  01          YVALW(I,J)=1.0
000075  01     31    CONTINUE
000076  01     32    CONTINUE
000077  01          YVALP=1.0
000078  01          ISWTCH=1
000079  01          FTWO=1.0
000080  01          NG=4
000081  01     33   DO 100 I=1,4
000082  01          DO 99 K=1,3
000083  01          UMATR(K,I,ISIDE)=0.0
000084  01     99   CONTINUE
000085  01    100   CONTINUE
000086  01    C  DOES THIS UNIT HAVE ANY FIRE POWER, IF NOT EXIT
000087  01    C    IF A BLUE DIV OR CORPS W/O SUPPORT @DE EXIT
000088  01    C  TEST AUTHORIZED PERSONNEL
000089  01          IF (STAFIL(1,ISIDE).LE.0.0) RETURN
000090  01    C
000091  01          ITET=NTNKS(IS)
000092  01    C  FORM MATRIX 3X3
000093  01          INDEX=58
000094  01                PRSREQ = 0.
000095  01          TYPE=4HTANK
000096  01          DO 500 K=1,3
000097  01          IF(K.EQ.2) TYPE=4HLARM
000098  01          ICAT=K
000099  01          IF (K.EQ.3) ICAT=4
000100  01          IF (K.EQ.2) ITET=NLARMR(IS)
000101  01          IF (K.EQ.3) ITET=NANTNK(IS)
000102  01          IF (K.EQ.2) INDEX=82
000103  01          IF (K.EQ.3) INDEX=116
000104  01    C
000105  01          J=0
000106  01          DO 200 I=1,23,2
000107  01          J=J+1
000108  01          IF (ITET.LT.J) GO TO 500
000109  01          WEPONS=STAFIL(INDEX+I,ISIDE)
000110  01          IF(WEPONS.LE.0.) GO TO 200
000111  02    C     NEXT 7 LINES ADDED TO ACCOUNT BUNKERS BY MINISECTOR, DEC 78
000112  04          IF(ISIDE.NE.1 .OR. K.NE.1.OR.ILO.LT.0) GO TO 109
000113  02          IF(J.NE.1 .AND. J.NE.6) GO TO 109
000114  02          WEPONS = 0.
000115  02          DO 115 MN=ILO,IHI
000116  02          IF(J .EQ. 1) WEPONS = WEPONS +TANK1(MN)
000117  02          IF(J .EQ. 6) WEPONS = WEPONS +TANK6(MN)
000118  02     115 CONTINUE
000119  02     109 IZ=4*(IS-1)+ICAT
000120  01          EFFWPN=WEPONS*YVALW(J,K)
000121  01          FP1=WPNBUF(10+NG,J,IZ)*EFFWPN
000122  01          FP2=WPNBUF(17+NG,J,IZ)*EFFWPN
000123  01          FP3=WPNBUF(24+NG,J,IZ)*EFFWPN
000124  01    C     NEXT LINE ADDED FOR BORDER DIVS, OCT 78
000125  01          IF(ISIDE .EQ.2.AND.INFORT(INDIVB).NE.0)FP1=FP1*BORDFP(K)
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000126  01          UMATR(1,K,ISIDE)=UMATR(1,K,ISIDE)+FP1
000127  01          UMATR(2,K,ISIDE)=UMATR(2,K,ISIDE)+FP2
000128  01          UMATR(3,K,ISIDE)=UMATR(3,K,ISIDE)+FP3
000129  01          IF(K.EQ.1) GO TO 200
000130  01            FP1=FP1*WHOLE
000131  01          WPIFP(K-1,J,IS) = WPIFP(K-1,J,IS) + FP1
000132  01          ATM(J) = 0.
000133  01          IF (K.GT.2) ATM(J) =FP1
000134  01          WPIFPT(K-1,IS) = WPIFPT(K-1,IS)+FP1
000135  01          IF(K.EQ.3) PRSREQ=PRSREQ+STAFIL(INDEX+1,ISIDE)*WPNBUF(1,J,IZ)
000136  01      200 CONTINUE
000137  01      500 CONTINUE
000138  01    C ----- TEST FOR AT/M PERS SHORTAGE AND MODIFY MATRIX IF NECESSARY
000139  01          IF(PRSREQ.LE.0.) GO TO 413
000140  01          XPRMOD=STAFIL(2,ISIDE)/PRSREQ
000141  01            IF(XPRMOD.GE.QFPMOD(IS)) GO TO 413
000142  01          YPRMOD=0.
000143  01            IF(XPRMOD.LE.RFPMOD(IS)) GO TO 415
000144  01          YPRMOD=(XPRMOD-RFPMOD(IS))/(QFPMOD(IS)-RFPMOD(IS))
000145  01      415 DO 410 K=1,3
000146  01          UMATR(K,3,ISIDE) = UMATR(K,3,ISIDE)*YPRMOD
000147  01      410  CONTINUE
000148  01    C     INCLUDE EFFECT ON AT/M SUPPRESSION IFPS
000149  01          X=1.-YPRMOD
000150  01          IF(X.LT.0.01) GO TO 413
000151  01            N=NANTNK(IS)
000152  01              DO 412 J=1,N
000153  01              Y=X*ATM(J)
000154  01              WPIFP(2,J,IS) = WPIFP(2,J,IS) - Y
000155  01              WPIFPT(2,IS) = WPIFPT(2,IS) - Y
000156  01      412   CONTINUE
000157  01    C ---------- ADD PERSONNEL IFP TO SOFT COLUMN
000158  01      413 PRSEFF=STAFIL(2,ISIDE)*YVALP
000159  01          FP= STAFIL(2+NG,ISIDE)*PRSEFF
000160  01    C     NEXT LINE ADDED FOR BORDER DIVS, OCT 78
000161  01          IF(ISIDE .EQ.2.AND.INFORT(INDIVB).NE.0)FP=PRSEFF*BORDFP(5)
000162  01          UMATR(1,3,ISIDE)=UMATR(1,3,ISIDE) + FP
000163  01            WPIFPT(2,IS)=WPIFPT(2,IS)+FP1*WHOLE
000164  01          UMATR(2,3,ISIDE)=UMATR(2,3,ISIDE)+STAFIL( 9+NG,ISIDE)*PRSEFF
000165  01          UMATR(3,3,ISIDE)=UMATR(3,3,ISIDE)+STAFIL(16+NG,ISIDE)*PRSEFF
000166  01              IF(NHELI(IS) .LE. 0 .AND. ISIDE .EQ. 2)GO TO 250
000167  01          IND=106
000168  01          NH=NHELIB*2
000169  01              IF (IS .EQ. 2)NH=NHELIR * 2
000170  01          J=0
000171  01          IF(NH.LE.0) GO TO 250
000172  01          DO 3300 I=1,NH,2
000173  01          J=J+1
000174  01    C  GET HELO WEAPON DATA
000175  01          IF(STAFIL(IND+1,ISIDE).LE.0.0) GO TO 3300
000176  01              IST=ISTR
000177  01              HLS=HLSSRT(NGAGMT)
000178  01              IF(ISIDE .NE. 2)GO TO 3301
000179  01            IST=MANSTB
000180  01            HLS=HELRTR(NGAGMT)
000181  01     3301 CONTINUE
000182  01          HELLOS=HEL(JKL+J)
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000183  01          HFACTR=1.0
000184  01          IF(HELLOS.LE.0.) GO TO 3302
000185  01          HFACTR=(HLS*100.)/(HELLOS*FLOAT(IST))
000186  01     3302 PHELUS(ISIDE,J)=AMIN1(HFACTR,POLX,AMMOX,1.0)
000187  01          IF (ISWTCH.NE.0) PHELUS(ISIDE,J)=1.0
000188  01          IZ=4*(IS-1)+3
000189  01          HELCOP=STAFIL(IND+1,ISIDE)*PHELUS(ISIDE,J)*WDTHF*FTWO
000190  01     C    NEXT 3 LINES MODIFIED TO ADJUST R FP AGAINST BORDER DIV, OCT 78
000191  01          HELFP1 = HELCOP*WPNBUF(10+NG,J,IZ)
000192  01          IF(ISIDE.EQ.2 .AND. INFORT(INDIVB).NE.0) HELFP1=HELFP1*BORDFP(4)
000193  01     C    UMATR(1,4,ISIDE)=UMATR(1,4,ISIDE)+HELCOP*WPNBUF(10+NG,J,IZ)
000194  01          UMATR(1,4,ISIDE)=UMATR(1,4,ISIDE)+HELFP1
000195  01          UMATR(2,4,ISIDE)=UMATR(2,4,ISIDE)+HELCOP*WPNBUF(17+NG,J,IZ)
000196  01          UMATR(3,4,ISIDE)=UMATR(3,4,ISIDE)+HELCOP*WPNBUF(24+NG,J,IZ)
000197  01     3300 CONTINUE
000198  01      250  CONTINUE
000199  02     C    NEXT 4 LINES MODIFIED TO ACCOUNT BUNKERS BY MINISECTOR, DEC 78
000200  02          II = 1
000201  04          IF(ILO .LT. 0) GO TO 209
000202  03          IF(ISIDE.EQ.1 .AND. INFORT(INDIVB).NE.0) II = 2
000203  01     C ----------MODIFY MATRIX BY FRONTAGE AND TROOP CONDITION
000204  04      209 DO 600 I=II,3
000205  01          DO 550 K=1,3
000206  01          UMATR(I,K,ISIDES)=UMATR(I,K,ISIDES)*WDTHF*FTWO
000207  01     550  CONTINUE
000208  01     600  CONTINUE
000209  01          RETURN
000210  01     50   WRITE (106,55) NGAGMT
000211  01     55   FORMAT(1H ,'ENGAGEMENT TYPE=',I5)
000212  01          RETURN
000213  01          END

END ELT.

@HDG,P  •••••  TCDATA/HL  ••••••

@ELT,L 75PRINT1.TCDATA/HL
ELT007 573R1A 02/27/79 14:21:40 (0,)
000001  00           COMPILER (XM = 1)
000002  00          BLOCK DATA TCDATA
000003  00     C
000004  00          INCLUDE PROC
000005  00     C----------ARMY/CORPS HISTORY ARRAY
000006  00     C
000007  00     C----------VARIOUS ARMY DELAYS
000008  00          COMMON/ADELAY/AUNTDB(2),AUNTDR(2),ARESDB(2),ARESDR(2)
000009  00          INTEGER AUNTDB,AUNTDR,ARESDB,ARESDR
000010  00     C
000011  00     C----------ARMY LEVEL INTELLIGENCE COEFFICIENTS
000012  00          COMMON/AINTLC/AINTB(3),AINTR(3)
000013  00     C
000014  00     C----------MINISECTOR ARMY HISTORY ARRAY
000015  00          DATA NOWPDA,MXPDA/1,3/
000016  00     C
000017  00     C
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000075  00  C----------IFPS FOR NOTIONAL BNS
000076  00        COMMON/BNIFPS/BBNIFP(50),BHLIFP(5),BAIFP,RBNIFP(50),RAIFP
000077  00  C
000078  00  C----------TOTAL BLUE BNS CURRENTLY IN THEATER
000079  00        COMMON/BNSUM/IBNSUM(50)
000080  00  C
000081  00  C----------NUMBER OF MANUEVER BN TYPES BY SIDE
000082  00        COMMON/BNTYPE/NBNTPB,NBNTPR
000083  00  C
000084  00  C----------VARIOUS CORPS DELAYS
000085  00        COMMON/CDELAY/UNTCDB(2),UNTCDR(2),CRESDB(2),CRESDR(2)
000086  00        INTEGER UNTCDB,UNTCDR,CRESDB,CRESDR
000087  00  C
000088  00  C----------CORPS/DIVISION HISTORY ARRAY
000089  00  C
000090  00  C----------CORPS LEVEL INTELLIGENCE COEFFICIENTS
000091  00        COMMON/CINTLC/CINTB(3),CINTR(3)
000092  00  C
000093  00  C----------MINISECTOR CORPS HISTORY ARRAY
000094  00        DATA NOWPDC,MXPDC/1,3/
000095  00  C
000096  00  C----------CORPS MISSION THRESHOLD FORCE RATIOS
000097  00        COMMON/CTHRSH/CATB(2),CDTB(2),CLTB,CATR(2),CDTR(2),CLTR
000098  00  C
000099  00  C
000100  00  C----------DIVISION/BRIGADE HISTORY ARRAY
000101  00  C
000102  00  C----------DEBUG PRINT REQUEST SWITCHES
000103  00        COMMON/DEBUG/GRNDPR,AIRPR
000104  00        INTEGER GRNDPR,AIRPR
000105  00  C
000106  00  C----------DIVISION LEVEL INTELLIGENCE COEFFICIENTS
000107  00        COMMON/DINTLC/DINTB(3,5),DINTR(3,5),AVGDNT(4)
000108  00  C
000109  00  C----------MINISECTOR DIVISION/BRIGADE HISTORY ARRAY
000110  00        DATA NOWPDD,MXPDD/1,3/
000111  00  C
000112  00  C           ********** WEAK ON-LINE DIVISION DATA **********
000113  00  C
000114  00  C    NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000115  00        COMMON/IWKDVS/ IDEFSW,MARGIN,IPOLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000116  00       *              RPOOL(9,3,6),RPOOLC(6)
000117  00  C     INTEGER RPOOLC,RPOOL  @CACELLED (NOT NEEDED) AUG 78
000118  00        REAL MARGIN
000119  00  C
000120  00  C  IDEFSW = DEFENSE SWITCH
000121  00  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000122  00  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000123  00  C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=4)
000124  00  C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000125  00  C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000126  00  C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000127  00  C
000128  00  C  LISTPL(4,6)
000129  00  C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000130  00  C           4 = DIV INDEXES OF WEAK DIVS
000131  00  C           6 = PARENT ARMY HQ
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00   C---------NUMBER OF BITS PER COMPUTER WORD
00          COMMON/REDCMN/GAINS(45),JSUPLY       @ 23 OCT 73 ALLISON
00         COMMON/WRDSIZ/IWRDSZ
00         DATA IWRDSZ/36/               @25JUL73DOC
00         END

END ELT.

@HDG,P ****** THESEC/PHASE ******

@ELT,L 75PRINT1.THESEC/PHASE
ELT007 S73R1A 02/27/79 14:21:46 (1,)
00          COMPILER (XM=1)
00         SUBROUTINE THESEC                                                 THESEC     2
00   C                                                                       THESEC     3
00   C---------ROUTINE TO PROCESS SCENARIO SECTION                           THESEC     4
00   C                                                                       THESEC     5
00         COMMON/SECBUF/MODEL,HRUN(2),HTHE(2),HCON(2),HUNT(2),HTBL(2),      THESEC     6
00        *               HAIR(2)                                            THESEC     7
00         COMMON/STOBUF/IBUFFR(4518)                                        8MAR73
00         DIMENSION BUFFER(4518)                                            8MAR73
00         EQUIVALENCE (IBUFFR,BUFFER)                                       WSTOBUF    4
00         COMMON/THELAB/HSMIN(2),HSEND(2),HSFEB(2),HSTOF(2),HSTER(2),HSMF(2) THESEC    9
00         COMMON/INPBUF/HLAB(2),INBUF(30),HASEQ,ISEQNO                      THESEC    10
00         COMMON/BTTSPC/BTFEBA,BTTRCE,BSTRFL,BLTRFL,BSTRFH,BLTRFH,BSTRTP,   THESEC    11
00        *               BLTRTP                                             THESEC    12
00         INTEGER BTFEBA,BTTRCE,BSTRFL,BLTRFL,BSTRFH,BLTRFH,BSTRTP,BLTRTP   THESEC    13
00         COMMON/IOUNIT/IOINP,IOOUT,IOTCM,IOPOST,IOERR                      THESEC    14
00         COMMON/MINISC/NMINI,MNMSBV,MNMSRV                                 WMINISC    2
01          COMMON/PHASE/LNPHSE(3,3,2)                           @PHASE 10JAN
00   C
00   C PHASE LINE LOCATION(S)                               @PHASE 10JAN
00   C LNPHSE(I,J,K)       I=1=LOW MINI BOUNDARY            @PHASE 10JAN
00   C                     I=2=HIGH MINI BOUNDARY           @PHASE 10JAN
00   C                     I=3=FEBA COORD OF LINE           @PHASE 10JAN
00   C                     J=1=LINE 1                       @PHASE 10JAN
00   C                     J=2=LINE 2                       @PHASE 10JAN
00   C                     J=3=LINE 3                       @PHASE 10JAN
00   C                     K=1=BLUE                         @PHASE 10JAN
00   C                     K=2=RED                          @PHASE 10JAN
00   C
00   C
00         DIMENSION TERN(4167)                                              CHNG111
00         DIMENSION IFEBCH(1000),FEBA(390),NDPNT(2,10),RNBUF(30)            CHNG111
00         DIMENSION NPTS(2)    @ 17 APR 74 ALLISON
00   C     NPTS(1)   = MIN   NPTS(2) = MAX
00         EQUIVALENCE (NPTS(1),MIN),(NPTS(2),MAX)  @ 17 APR 74
00         EQUIVALENCE(IBUFFR(391),NDPNT),(INBUF,RNBUF),(IBUFFR,TERN)        CHNG111
00         EQUIVALENCE (IBUFFH,FEBA),(IBUFFR(411)),IFEBCH)                   CHNG111
00         DATA MXTREE,MXTRBE/50,100/                                        THESEC    20
00   C                                                                       THESEC    21
00   C---------READ SECTION CARD                                             THESEC    22
00         MODEL=2                                                           THESEC    23
00         CALL SECARD                                                       THESEC    24
00         CALL CLRBUF                                                       THESEC    25
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000044  00  C                                                              THESEC  26
000045  00  C---------PICK UP MINISECTOR COUNTS                            THESEC  27
000046  00        CALL READCR (HSMIN,48)                                   THESEC  28
000047  00        NMINI=INBUF(1)                                           THESEC  29
000048  00        NMNTRB=INBUF(2)                                          THESEC  30
000049  00        MNMSBV=MAXO(INBUF(3),2)                                  THESEC  31
000050  00        MNMSRV=MAXO(INBUF(4),1)                                  THESEC  32
000051  00        FDRATO = RNBUF(5)     @ COR 31AUG73DOC
000052  00        MAXFLK = INBUF(6)     @ COR 31AUG73DOC CEMII TO CEMIII
000053  00  C
000054  00  C            **** WEAK ON-LINE DIV ****
000055  00  C
000056  00              IPOLMX=INBUF(7)
000057  00  C     NEXT LINE MODIFIED FOR MORE ARMY RESERVE DIVS, AUG 78
000058  00              IF(IPOLMX.GT.9) GO TO 8001
000059  00              IDEFSW=IPOLMX
000060  00              ARGIN=RNBUF(8)
000061  00              WOLDTH=RNBUF(9)
000062  00  C
000063  00  C SAVE COUNT OF BLUE PHASE LINE CARDS          @PHASE 10JAN
000064  00          IBLUPH=INBUF(10)                       @PHASE 10JAN
000065  00  C
000066  00  C SAVE COUNT OF RED PHASE LINE CARDS           @PHASE 10JAN
000067  00        IREDPH=INBUF(11)                         @PHASE 10JAN
000068  00  C
000069  00        IF ((NMINI.LE.0).OR.(NMINI.GT.1000)) GO TO 8001          THESEC  33
000070  00  C                                                              THESEC  34
000071  00  C---------SEE IF NUMBER OF TERRAIN BANDS REQUIRED EXCEEDS MAX   THESEC  35
000072  00        NTBENT=NMINI/NMNTRB                                      THESEC  36
000073  00        IF ((NMNTRB*NTBENT).NE.NMINI) NTBENT=NTBENT+1            THESEC  37
000074  00        IF (NTBENT.GT.MXTRBE) GO TO 8006                         THESEC  38
000075  00  C                                                              THESEC  39
000076  00  C---------GET INITIAL FEBA LOCATIONS                           THESEC  40
000077  00          IFBLOW=1000000   @29NOV
000078  00          IFBHGH=0         @29NOV
000079  00   2000 CALL READCR (HSFEB,4)                                    THESEC  41
000080  00        DO 3000 JENTRY=1,3                                       THESEC  42
000081  00          IBASE=3*(JENTRY-1)                                     THESEC  43
000082  00          ISTART=INBUF(IBASE+1)                                  THESEC  44
000083  00          ISTOP=INBUF(IBASE+2)                                   THESEC  45
000084  00          IFEBA=INBUF(IBASE+3)                                   THESEC  46
000085  00        IF(IFEBA.LT.IFBLOW) IFBLOW=IFEBA  @29NOV
000086  00        IF(IFEBA.GT.IFBHGH) IFBHGH=IFEBA  @29NOV
000087  00          IF ((ISTART.LE.0).OR.(ISTART.GT.NMINI))  GO TO 8002    THESEC  47
000088  00          IF ((ISTOP.LE.0).OR.(ISTOP.GT.NMINI)) GO TO 8002       THESEC  48
000089  00          IF (IFEBA.LE.0) GO TO 8002                             THESEC  49
000090  00          IF (ISTART.GT.ISTOP) GO TO 8002                        THESEC  50
000091  00          CALL CINDEX (ISTART,BTFEBA,INDEX,LOVER)                THESEC  51
000092  00          DO 3100 I=ISTART,ISTOP                                 THESEC  52
000093  00            IFEBCH(I)=1                                          THESEC  53
000094  00            CALL PAK (FEBA(INDEX),LOVER,BTFEBA,IFEBA)            THESEC  54
000095  00            LOVER=LOVER+BTFEBA                                   THESEC  55
000096  00   3100   CONTINUE                                              THESEC  56
000097  00          IF (ISTOP.EQ.NMINI) GO TO 2100                         THESEC  57
000098  00   3000 CONTINUE                                                THESEC  58
000099  00        GO TO 2000                                               THESEC  59
000100  00  C                                                              THESEC  60
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000101      00   C---------CHECK TO SEE THAT ALL MINISECTORS HAVE FEBA                THESEC   61
000102      00    2100 ISWTCH=0                                                      THESEC   62
000103      00         DO 3200 I=1,NMINI                                            THESEC   63
000104      00           IF (IFEBCH(I).NE.0) GO TO 3200                             THESEC   64
000105      00           WRITE (IOERR,9100) I                                       THESEC   65
000106      00           ISWTCH=ISWTCH+1                                            THESEC   66
000107      00    3200 CONTINUE                                                     THESEC   67
000108      00         IF (ISWTCH.EQ.0) GO TO 2200                                  THESEC   68
000109      00         WRITE (IOERR,9101) ISWTCH                                    THESEC   69
000110      00    9100 FORMAT (1H0,10X,37H*** FEBA NOT SPECIFIED FOR MINISECTOR,I5)  THESEC   70
000111      00    9101 FORMAT (1H0,26X, 5HTOTAL,I5)                                  THESEC   71
000112      00    9900 CALL JBKILL                                                   THESEC   72
000113      00    C                                                                  THESEC   73
000114      00    C---------GET FEBA ENDPOINTS                                       THESEC   74
000115      00    2200 NENTRY=NMINI/100                                            THESEC   75
000116      00    C
000117      00    C ANY PHASE LINES TO INPUT                    @PHASE 10JAN
000118      00    C          INPUT CODE FOR PHASE THRU NEXT 18 LINES
000119      00              IF(IBLUPH.LE.0)GO TO 2255
000120      00               IS=1
000121      00               ICNT=IBLUPH
000122      00    2224       DO 2240 II=1,ICNT
000123      00               CALL READCR(HSPSE,4)
000124      00               NI=(II-1)*3
000125      00               DO 2230 JI=1,3
000126      00               JJ=NI+JI
000127      00               IL=(JI-1)*3
000128      00               DO 2210 MN=1,3
000129      00               LNPHSE(MN,JJ,IS)=INBUF(IL+MN)
000130      00    2210       CONTINUE
000131      00    2230       CONTINUE
000132      00    2240       CONTINUE
000133      00    2255       IS=2
000134      00               ICNT=IREDPH
000135      00               IF(IREDPH.GT.0)GO TO 2224
000136      00    C END OF THIS SET OF CODE CHANGES FOR PHASE
000137      00    C
000138      00         MIN =1000000      @ 17 APR 74 ALLISON
000139      00         MAX =0            @ 17 APR 74 ALLISON
000140      00         IF (NMINI.NE.(100*NENTRY)) NENTRY=NENTRY+1                   THESEC   76
000141      00         DO 3300 JENTRY=1,NENTRY,6                                    THESEC   77
000142      00           CALL READCR (HSEND,5)                                      THESEC   78
000143      00           DO 3301 I=1,6                                              THESEC   79
000144      00             INDEX=I+JENTRY-1                                         THESEC   80
000145      00             IF (INDEX.GT.NENTRY) GO TO 2300                          THESEC   81
000146      00             IND=2*(I-1)                                              THESEC   82
000147      00             NDPNT(1,INDEX)=INBUF(IND+1)                              THESEC   83
000148      00             NDPNT(2,INDEX)=INBUF(IND+2)                              THESEC   84
000149      00         IF(NDPNT(1,INDEX) .LT. MIN)MIN=NDPNT(1,INDEX) @17APR74 ALLI
000150      00         IF(NDPNT(2,INDEX) .GT. MAX)MAX=NDPNT(2,INDEX) @17APR74 ALLI
000151      00          IF (NDPNT(1,INDEX).GT.IFBLOW)GO TO 8008  @29NOV
000152      00          IF (NDPNT(2,INDEX).LT.IFBHGH) GO TO 8008 @29NOV
000153      00    3301    CONTINUE                                                 THESEC   85
000154      00    3300 CONTINUE                                                    THESEC   86
000155      00    C                                                                THESEC   87
000156      00    C---------GET MOVEMENT FACTOR FOR THEATER                        THESEC   88
000157      00    2300 CALL READCR (HSMF,12)                                       THESEC   89
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00  C                                                                  THESEC    90
00  C---------TRANSMIT ACCUMULATED DATA AND CLEAR BUFFER               THESEC    91
00        WRITE(IOTCM)NMINI,MNMSBV,MNMSRV,FDRATO,MAXFLK,FEBA,NDPNT,
00       * (RNBUF(I),I=1,4),IPOLMX,IDEFSW,ARGIN,WOLDTH        @WKDIVI 10
00        WRITE (IOPOST) NMINI,NPTS                                      TH
00        CALL CLRBUF                                                  THESEC    94
00  C                                                                  THESEC    95
00  C---------GET TERRAIN DATA                                         THESEC    96
00        CALL READCR (MSTDF,8)                                        THESEC    97
00        ITDEF=ITIND (RNBUF)                                          THESEC    98
00        IF (ITDEF.EQ.3) GO TO 8007                                   THESEC    99
00        DO 3400 JENTRY=1,NTBENT                                      THESEC   100
00          CALL BNDPRT (JENTRY,NMNTRB*(JENTRY-1)+1,MIND(NMINI,NMNTRB*JENTRY THESEC 101
00       *            ))                                               THESEC   102
00          NSENT=0                                                    THESEC   103
00          LSTHI=0                                                    THESEC   104
00          CALL CINDEX (JENTRY,MXTREE*BTTRCE,INDEX,LOVER)             THESEC   105
00   2400   CALL READCR (MSTER,7)                                      THESEC   106
00          DO 3401 I=1,4                                              THESEC   107
00            IND=3*(I-1)                                              THESEC   108
00            ILOW=INBUF(IND+1)                                        THESEC   109
00            IHIGH=INBUF(IND+2)                                       THESEC   110
00            IF ((ILOW.EQ.0).AND.(IHIGH.EQ.0)) GO TO 3400             THESEC   111
00            NSENT=NSENT+1                                            THESEC   112
00            IF (NSENT.GT.MXTREE) GO TO 8003                          THESEC   113
00            ITERN=ITIND (RNBUF(IND+3))                               THESEC   114
00            IF (ITERN.EQ.3) GO TO 2500                               THESEC   115
00            IF (ILOW.GT.IHIGH) GO TO 8004                            THESEC   116
00            IF (ILOW.LE.LSTHI) GO TO 8005                            THESEC   117
00            GO TO 2600                                               THESEC   118
00   2500     IF (IHIGH.LE.LSTHI) GO TO 8005                           THESEC   119
00   2600     LSTHI=IHIGH                                              THESEC   120
00            CALL PAK (TERN(INDEX),LOVER+BSTRFL,BLTRFL,ILOW)          THESEC   121
00            CALL PAK (TERN(INDEX),LOVER+BSTRFH,BLTRFH,IHIGH)         THESEC   122
00            CALL PAK (TERN(INDEX),LOVER+BSTRTP,BLTRTP,ITERN)         THESEC   123
00            LOVER=LOVER+BTTRCE                                       THESEC   124
00   3401   CONTINUE                                                   THESEC   125
00          GO TO 2400                                                 THESEC   126
00   3400 CONTINUE                                                     THESEC   127
00  C                                                                  THESEC   128
00  C---------TRANSMIT TERRAIN DATA,PHASE LINES, AND EXIT        @PHASE 10JAN
00        WRITE (ILTCM) ITDEF,NMNTRB,TERN,LNPHSE                 @PHASE 10JAN
00        RETURN                                                       THESEC   131
00  C                                                                  THESEC   132
00  C---------ERRORS                                                   THESEC   133
00   8001 WRITE (IOERR,9001)                                           THESEC   134
00   9001 FORMAT (1H0,10X,42H*** INPUT VALUE OUT OF RANGE ON ABOVE CARD) THESEC  135
00        GO TO 9900                                                   THESEC   136
00   8002 WRITE (IOERR,9002) JENTRY                                    THESEC   137
00   9002 FORMAT (1H0,10X,26H*** INCONSISTENCY IN ENTRY,I2,14H ON ABOVE CARD THESEC 138
00       *      )                                                      THESEC   139
00        GO TO 9900                                                   THESEC   140
00   8003 WRITE (IOERR,9003)                                           THESEC   141
00   9003 FORMAT (1H0,10X,44H*** NUMBER OF ENTRIES FOR THIS TERRAIN BAND ,  THESEC 142
00       *         15HEXCEEDS MAXIMUM)                                 THESEC   143
00        GO TO 9900                                                   THESEC   144
00   8004 WRITE (IOERR,9004)                                           THESEC   145
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000215  00     9004 FORMAT (1HO,10X,36H*** DATA INCONSISTENCY ON ABOVE CARD)          THESEC  146
000216  00          GO TO 9900                                                       THESEC  147
000217  00     8005 WRITE (10ERR,9005)                                               THESEC  148
000218  00     9005 FORMAT (1HO,10X,41H*** ENTRIES FOR THIS TERRAIN BAND NOT IN ,    THESEC  149
000219  00         • 18HASCENDING KM ORDER)                                          THESEC  150
000220  00          GO TO 9900                                                       THESEC  151
000221  00     8006 WRITE (10ERR,9006)                                               THESEC  152
000222  00     9006 FORMAT (1HO,10X,37H*** NUMBER OF TERRAIN BANDS REQUIRED ,        THESEC  153
000223  00         • 11HEXCEEDS 10)                                                  THESEC  154
000224  00          GO TO 9900                                                       THESEC  155
000225  00     8007 WRITE (10ERR,9007)                                               THESEC  156
000226  00     9007 FORMAT (1HO,10X,34H*** DEFAULT TERRAIN NOT A, B, OR C)           THESEC  157
000227  00          GO TO 9900                                                       THESEC  158
000228  00     8008  WRITE(10ERR,9008)
000229  00     9008  FORMAT(1HO,10X, '*** MAP END PTS. INCONSISTENT WITH FEBA')
000230  00           GO TO 9900
000231  00          END                                                              THESEC  159

END ELT.

@MDG,P  •••••• TNKAPC/LOSSES ••••••

@ELT,L 75PRINT1.TNKAPC/LOSSES
ELT007 573RIA 02/27/79 14:21:50 (3,)
000001  00          COMPILER (XM = 1)
000002  00          SUBROUTINE TNKAPC(1SIDE)
000003  00          INCLUDE PROC
000004  00          COMMON/CASCOM/ TOTL(4,2),FRNT(2),WHOLE,IENT,IOPEN,VKIA,VWIA,
000005  00         •               DNBI,EATCAS(2),CWSURV,CREWOK,IDAT(4,4),
000006  00         •               WPNCRW,NGAGMT,,IFEBCG,IS,IESD
000007  00     C
000008  00     C-------COMPUTE TANK AND APC LOSSES (DESTROYED, DAMAGED BUT REPAIRABLE)
000009  00     C-------AND ABANDONED ON BATTLEFIELD.
000010  00               COMMON/USC/ IUS(70)
000011  00               COMMON/USCC/ IUSC(30)
000012  00            COMMON/PRTSW/IPRINT(2),IPP,MINIPL,MINIPH,JPP
000013  00          COMMON/NPERD/NTCYC,NACYC,NCCYC,NDCYC,IWARTM,IDPT,IDPC,ICPA,IAPT
000014  00          COMMON/IOUNIT/I01,I02,I04,I09
000015  00     C    NEXT 5 LINES ADDED TO ACCOUNT BUNKERS BY MINISCTR, DEC 78
000016  01          COMMON/BORLOS/RTANKL,TANK1L,TANK6L
000017  00          COMMON/BORDIV/INFORT(70)
000018  00          COMMON/CAVBDE/ICRPB,IDIVB
000019  00          COMMON/BUNKER/TANK1(600),TANK6(600)
000020  00          COMMON/SSLIMT/ILO,IHI
000021  03     C    NEXT LINE ADDED TO REPORT ABANDONED WEAPONS, FEB 79
000022  03          COMMON/ABANDW/ABNTNK,ABNAPC
000023  00          COMMON/IWPNTP/NTNKS(2),NLAHMR(2),NHELOS(2),NANTNK(2)
000024  00          COMMON/BIGLOS/LOSSES(95,4)
000025  00          REAL LOSSES
000026  00          COMMON/AMA/ANAT(3,6,2),SUMX(3,2,2)
000027  00     C  ANAT(3,6,2)=OUTCOME MATRIX BY SIDE
000028  00     C  SUMX(1)=AT 2=ALA 3=AP,1=ROWS,ISIDE)       OUTCOME MATRIX ROW SUMS
000029  00     C  SUMX(1)=HARD 2=MED 3=SOFT,2=COLUMNS,ISIDE) OUTCOME MATRIX COL SUMS
000030  00     C
000031  00     C    NEXT LINE ADDED FOR PERSONNEL LOSSES BY WEAPON TYPE, OCT 77
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000032      00          COMMON/PLWTYP/CREWL(12,2,2),CLHELO(10),PLREST(2),PLCREW(2),F9(18)
000033      00    C     NEXT LINE ADDED FOR KILLER-VICTIM SCOREBOARD, MAY 78
000034      00          COMMON/CAUS/TKCAUS(8,12,2),ACAUS(8,12,2),HECAUS(2,5,2),PLCAUS(8,2)
000035      00          COMMON/LOGC/EQPMNT(5,3,2),HOSPUL(2),PERTPL(2),DNBIKL(2),WIAHSP(2),
000036      00         * DNBIHP(2),PNBLOS(2),PRCASL(9,2),PRKIA(9,2),PRWIA(9,2),ASSIM(10,2)
000037      00          COMMON/RVDATA/MINRV(2),DSABNR,DGABNR,GSABNR,ACSQR,ISTR,MANBNR(50),
000038      00         *              MSNR,IDRR,IGRR,LCAR,JARTPR,IDVTP,IRDS
000039      00          INTEGER DSABNR,DGABNR,GSABNR,ACSQR
000040      00          COMMON/DAMAGD/HOSP(4),HOSPIN(20,4),REPAIR(30,2)
000041      00    C  20 THEATER CYCLES FOR MAX DELAY
000042      00    C  TANKS BY TYPE 1-12
000043      00    C  13-24 LIGHT ARMOR BY TYPE
000044      00    C  25-29 HELICOPTERS BY TYPE
000045      00            COMMON/ARRAYB/XL(6,6,2),RATIO(6),HELO(4),PERLOS(12,3)
000046      00          COMMON/AREST/ARTF(3,2)
000047      00    C  ARTF=IFP FROM ARTY FOR ENGAGEMENT
000048      00          COMMON/ARTKFT/ARTK1(2),ARTK4(2),ARTK5(12,2,2),ARTK2(2),
000049      00         *      ARTK3(8,2,2),ARTK6(2),BNAS(2)
000050      00    C ARTK5(WPN,TANK OR APC,SIDE)=DAMAGE COEFFICIENT OF ENEMY AT OR ALA
000051      00    C
000052      00    C                 **** WETZEL CHANGES 2 MAY 77 ****
000053      00          COMMON/WETZEL/JFL,PSHOP(5,29,3),PCAP(3,3),PDELAY(3,3),REPARE(29,3)
000054      00          INTEGER PDELAY
000055      00    C             END    **** WETZEL CHANGES  2 MAY 77 ****
000056      00          ITET=NTNKS(IS)
000057      00          INDEX=58
000058      00          N=4
000059      00          KENT = 2
000060      00    C--------KENT IS THE LOSS INDEX FOR CBTLOS
000061      00    C         1=PERS, 2=TANKS, 3=APCS, 4=HELOS
000062      00    C
000063      00    C--------  K=1 FOR TANKS.  K=2 FOR LIGHT ARMOR
000064      00    C
000065      00          DO 500 K=1,2
000066      00          IF(K.EQ.1) GO TO 10
000067      00          ITET=NLARMR(IS)
000068      00          INDEX=82
000069      00          N=16
000070      00          KENT = 3
000071      00       10 TWP=TOTL(K+1,IS)*FRNT(IS)
000072      00          IF(TWP .LE. .0.0) GO TO 500
000073      00          ROWSUM=SUMX(K,1,IESD)
000074      00          IF(IPP.GT.0.AND.ROWSUM.LE.0.) PRINT  72  ,K,IESD
000075      00       72 FORMAT(' CASL SUMX ZERO FOR K = ',I3,' AND IESD = ',I3)
000076      00          DO 86 JKL=1,6
000077      00          RATIO(JKL) = 0.
000078      00          IF(ROWSUM.LE.0..OR.NGAGMT.EQ.8) GO TO 86
000079      00          RATIO(JKL)=ANAT(K,JKL,IESD)/ROWSUM
000080      00       86 CONTINUE
000081      00          J=0
000082      00          DO 200 I=1,23,2
000083      00          J=J+1
000084      00          IF(ITET.LT.J) GO TO 500
000085      00          QUANT=WHOLE*STAFIL(INDEX+I,ISIDE)
000086      00    C     NEXT 8 LINES ADDED TO ACCOUNT BUNKERS BY MINISCTR, DEC 78
000087      00          IF(ISIDE.NE.1 .OR. K.NE.1) GO TO 109
000088      02          IF(INFORT(IDIVB) .EQ.0) GO TO 109
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000089      00          QUANT = 0.
000090      00          DO 115 MN=ILO,IHI
000091      00          IF(J .EQ. 1) QUANT = QUANT +TANK1(MN)
000092      00          IF(J .EQ. 6) QUANT = QUANT +TANK6(MN)
000093      00      115 CONTINUE
000094      00      109 IF (QUANT.LT.0.01) GO TO 200
000095      00    C-----------COMPUTE TOTAL PERSONNEL IN SUBSECTOR
000096      00           IZ=9*(IS-1)+K
000097      00          WPNCRW=WPNCRW+WPNBUF(1,J,IZ)*QUANT
000098      00          L2=2
000099      00          IR=J+12*(K-1)
000100      00          WABAN=0.
000101      00          WR=0.
000102      00          WPNHIT=0.
000103      00          WABAN=0.
000104      00          WABAN1=0.
000105      00          WABAN2=0.
000106      00          IF(NGAGMT .NE. 8) GO TO 76
000107      00          CASART=ARTF(K,IESD)+EATCAS(K)
000108      00          EP=-ARTKS(J,K,IS)*CASART/TWP
000109      00          IF(CASART.LE.0.) GO TO 76
000110      00              RATIO(5)=ARTF(K,IESD)/CASART
000111      00              RATIO(6)=1.0-RATIO(5)
000112      00       76 CONTINUE
000113      00    C-----------  COMPUTE WEAPONS HIT
000114      00          IADD = 9*IOPEN
000115      00           IZ=9*(IS-1)+K
000116      00          IF(NGAGMT.NE.8) EP= -XKFACT(NGAGMT,K,J,IS)*ROWSUM/TWP
000117      00          WPNHIT=QUANT*(1.-EXP(EP))
000118      00          CBTLOS(IENT,KENT) = CBTLOS(IENT,KENT) + WPNHIT
000119      00    C-----------CALCULATE WEAPONS DESTROYED
000120      00          WPDEST=WPNBUF(6+IOPEN,J,IZ)*WPNHIT
000121      00            DO 84 JKL=1,6
000122      00          RAT=RATIO(JKL)
000123      00          IF(RAT.LT.0.001) GO TO 84
000124      00            XL(K,JKL,IS)=XL(K,JKL,IS)+WPNHIT*RAT
000125      00    C     NEXT 3 LINES ADDED FOR KILLER-VICTIM SCOREBOARD, MAY 78
000126      00            IF(JPP.EQ.0) GO TO 84
000127      00          IF(K.EQ.1)TKCAUS(JKL+2,J,IS)=TKCAUS(JKL+2,J,IS)+WPNHIT*RAT
000128      00          IF(K.EQ.2)ACAUS(JKL+2,J,IS)= ACAUS(JKL+2,J,IS)+WPNHIT*RAT
000129      00       84 CONTINUE
000130      00    C     NEXT 5 LINES ADDED FOR KILLER-VICTIM SCOREBOARD, MAY 78
000131      00            IF(JPP.EQ.0) GO TO 120
000132      00          IF(K.EQ.2)ACAUS(1,J,IS)= ACAUS(1,J,IS)+QUANT
000133      00          IF(K.EQ.2)ACAUS(2,J,IS)= ACAUS(2,J,IS)+WPNHIT
000134      00          IF(K.EQ.1)TKCAUS(2,J,IS)=TKCAUS(2,J,IS)+WPNHIT
000135      00          IF(K.EQ.1)TKCAUS(1,J,IS)=TKCAUS(1,J,IS)+QUANT
000136      00    C  COMPUTE WEAPON REPAIRABLE
000137      00      120 WR=WPNHIT-WPDEST
000138      00    C-----------COMPUTE PERSONNEL KILLED IN WEAPON CREWS
000139      00          IZ=9*(IS-1)+K
000140      00          VDEAD=WPNBUF(L2,J,IZ)-WPNBUF(3,J,IZ)
000141      00          VKIA=VKIA+WPNHIT*VDEAD
000142      00          DO 85 JKL=1,6
000143      00          RAT=RATIO(JKL)
000144      00          IF(RAT.LT.0.001) GO TO 85
000145      00          XL(9,JKL,IS)=XL(9,JKL,IS)+WPNHIT*WPNBUF(2,J,IZ)*RAT
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000146  00  C     NEXT 2 LINES ADDED FOR KILLER-VICTIM SCOREBOARD, MAY 78
000147  00          IF(JPP.EQ.0) GO TO 85
000148  00          PLCAUS(JKL+2,IS)= PLCAUS(JKL+2,IS)+WPNHIT*WPNBUF(2,J,IZ)*RAT
000149  00       85 CONTINUE
000150  00  C     NEXT 2 LINES ADDED FOR KILLER-VICTIM SCOREBOARD, MAY 78
000151  00          IF(JPP.NE.0)PLCAUS(1,IS)= PLCAUS(1,IS)+WPNBUF(1,J,IZ)*QUANT
000152  00          IF(JPP.NE.0)PLCAUS(2,IS)= PLCAUS(2,IS)+WPNBUF(2,J,IZ)*WPNHIT
000153  00  C       IF(IPP.NE.0)PRINT 243,IS,K,J,(XL(5,JKL,IS),JKL=1,6),RATIO
000154  00  C 243 FORMAT(' **TANK/APC CREW LOSSES, SIDE',I2,', WEAPON',2I3,
000155  00  C     . '          CUMULATIVE, BY SHOOTER:'/10X,6F10.3,6F9.5)
000156  00          VWIA=VWIA+WPNHIT*WPNBUF(3,J,IZ)
000157  00  C     NEXT 2 LINES ADDED FOR PERSONNEL LOSSES BY WEAPON TYPE, OCT 77
000158  00          IF(ISIDE .NE. 2)CREWL(J,1,K)=CREWL(J,1,K)+WPNHIT*VDEAD
000159  00          IF(ISIDE .NE. 2)CREWL(J,2,K)=CREWL(J,2,K)+WPNHIT*WPNBUF(3,J,IZ)
000160  00          CWSURV=CWSURV+WPNHIT*(WPNBUF(1,J,IZ)-WPNBUF(2,J,IZ))
000161  00  C  COMPUTE BREAKDOWNS
000162  00          BIGB=QUANT-WPNHIT
000163  00          IZ=4*(IS-1)+K
000164  00          BREAK = BIGB*WPNBUF(63,J,IZ)
000165  00          WRB=BREAK*WPNBUF(64,J,IZ)
000166  00          BRKDST=BREAK-WRB
000167  00          IF(NGAGMT.EQ.0) GO TO 45
000168  00          IF(IS.EQ.1.AND.IFEBCG.GE.0) GO TO 45
000169  00          IF(IS.EQ.2.AND.IFEBCG.LE.0) GO TO 45
000170  00  C------------IF FEBA CHANGE FAVORABLE, NO ABANDONMENT
000171  00          EP=IFEBCG*EQPMNT(4,K,IS)
000172  00          IF(EP.GT.0.) EP=-1.*EP
000173  00          FRACT=1.-EXP(EP)
000174  00          WABAN1=FRACT*WR
000175  00          WR=WR-WABAN1
000176  00          WABAN2=FRACT*WRB
000177  00          WRB=WRB-WABAN2
000178  00          WABAN=WABAN1+WABAN2
000179  00  C  SAVE TOTAL REPAIRABLE WEAPONS BY TYPE
000180  00       45 REPAIR(IR,IS)=REPAIR(IR,IS)+WR+WRB
000181  00  C                        **** WETZEL CHANGES  2 MAY 77 ****
000182  00          IF(IS.EQ.1) REPARE(IR,JFL)=REPARE(IR,JFL)+WR+WRB
000183  00  C           END          **** WETZEL CHANGES  2 MAY 77 ****
000184  00          CRLOS(N+J,1,IS) = CRLOS(N+J,1,IS) + WR
000185  00          CRLOS(N+J,2,IS) = CRLOS(N+J,2,IS) + WPNHIT - WR
000186  00          CRLOS(N+J,3,IS) = CRLOS(N+J,3,IS) + WRB
000187  00          CRLOS(N+J,4,IS) = CRLOS(N+J,4,IS) + BREAK - WRB
000188  00  C------------CREWOK IS CREW FROM BREAKDOWNS.  REASSIGN TO PERS POOL
000189  00          CREWOK=CREWOK + BREAK*WPNBUF(1,J,IZ)
000190  00          DEST=WPDEST+BRKDST
000191  00          REPS=WR+WRB
000192  03  C     NEXT 3 LINES ADDED TO REPORT ABANDONED WEAPONS, FEB 79
000193  03          IF(IS .EQ. 2) GO TO 191
000194  03          IF(K .EQ. 1) ABNTNK = ABNTNK +WABAN
000195  03          IF(K .EQ. 2) ABNAPC = ABNAPC +WABAN
000196  00  C     NEXT 10 LINES ADDED TO ACCOUNT BUNKERS BY MINISCTR, DEC 78
000197  03       191 IF(INFORT(IDIVB) .EQ.0 .OR. K.NE.1) GO TO 189
000198  02          IF(ISIDE.EQ.2)RTANKL = RTANKL+WPNHIT*RATIO
000199  02          IF(ISIDE.NE.1)GO TO 189
000200  00          IF(J .EQ. 1) TANKIL = TANKIL +WPDEST
000201  00          IF(J .EQ. 6) TANK6L = TANK6L +WPDEST
000202  00          BNKRL = 1.-(DEST +WABAN +REPS)/QUANT
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000203       00          DO 182 MN=1LO,1HI
000204       00          IF(J .EQ. 1) TANK1(MN) = TANK1(MN)*BNKRL
000205       00          IF(J .EQ. 6) TANK6(MN) = TANK6(MN)*BNKRL
000206       00      182 CONTINUE
000207       00          IF(JPP.EQ.1)WRITE(106,185)J,WHOLE,STAFIL(INDEX+1,1),QUANT,BNKRL
000208       00      185 FORMAT(' BUNKER LOSSES, TYPE',I2,'; FRAC OF BDE',F5.3,
000209       00         .', STAFIL', F10.4,' IN SUBSCTR',F10.4,' FRAC SURVIVING',F5.3)
000210       00          IF(JPP.EQ.1.AND. J.EQ.1)WRITE(106,186)(TANK1(MN),MN=1LO,1HI)
000211       00          IF(JPP.EQ.1.AND. J.EQ.6)WRITE(106,186)(TANK6(MN),MN=1LO,1HI)
000212       00      186 FORMAT( 9X,'SURVIVORS BY MINISCTR',10F10.4)
000213       00      189 LOSSES(N+J,1SIDE)=LOSSES(N+J,1SIDE)+DEST+WABAN+REPS
000214       00          REP=REPAIR(1R,1S)
000215       00    C     IF(1PP.EQ.0.OR.JPP.EQ.0) GO TO 96
000216       00    C     IF(NGAGMT.LT.8) PRINT 7050,(1DAT(JL,K),JL=1,4),J,QUANT,WPNHIT,
000217       00    C    .    WPDEST,BREAK,WABAN,WR
000218       00    C     IF(NGAGMT.EQ.8) PRINT 7050,(1DAT(JL,K),JL=1,4),J,QUANT,WPNHIT,
000219       00    C    .    WPDEST,BREAK,WABAN,WR,
000220       00    C    . ARTF(K,1ESD),EATCAS(K),ARTKS(J,K,1S)
000221       00    C 96  CONTINUE
000222       00    C7050 FORMAT(1X,4A4,13,2(2X,F6.2),3X,F6.2,5X,F6.2,6X,F6.2,7X,F6.2,
000223       00    C    .      F10.3,F8.3,F10.4)
000224       00    C  PLACE REPAIRABLE WEAPONS IN SHOP
000225       00    C                      •••• WETZEL CHANGES  2 MAY 77 ••••
000226       00    C     IF(1S.EQ.1) GO TO 200
000227       00    CC       END           •••• WETZEL CHANGES  2 MAY 77 ••••
000228       00    C     IDL=EQPMNT(1,K,1S)+1
000229       00    C     IF (1DL.GT.20) IDL=20
000230       00    C     QUANTM=EQPMNT(5,K,1S)-SHOP(1DL,1R,1S)
000231       00    C     QUANT=AMIN1(QUANTM,REPAIR(1R,1S))
000232       00    C     SHOP(1DL,1R,1S)=SHOP(1DL,1R,1S)+QUANT
000233       00    C     REPAIR(1R,1S)=REPAIR(1R,1S)-QUANT
000234       00      200 CONTINUE
000235       00      500 CONTINUE
000236       00          RETURN
000237       00          END

END ELT.

@MDG,P  •••••• UPLST/HL ••••••

@ELT,L 75PRINT1.UPLST/HL
ELT007 S73R1A 02/27/79 14121154 (3,)
000001       00          COMPILER (XM=1)
000002       00          SUBROUTINE UPLST(1ARMY,NARMY,1DIV)
000003       00    C
000004       00    C  THIS SUBROUTINE SCANS ARMY RESERVE POOL TO SEE IF A DIV IN SAID
000005       00    C  POOL HAS BEEN INCLUDED IN CREATED ARMY. IF SO, SAID DIV IS MOVED
000006       00    C  TO CREATED ARMY RESERVE POOL.
000007       00    C
000008       00    C
000009       00    C            •••••••••••• WEAK ON-LINE DIVISION DATA ••••••••••••
000010       00    C
000011       00    C     NEXT 2 LINES MODIFIED FOR MORE ARMY RESERVES, AUG 78
000012       00          COMMON/1WKDVS/ IDEFSW,MARGIN,1POLMX,WOLDTH,LISTPL(9,6),LISTLC(6),
000013       00         .                RPOOL(9,3,6),RPOOLC(6)
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000014  00        INTEGER RPOOLC
000015  00          INTEGER RPOOL
000016  00        REAL MARGIN
000017  00  C
000018  00  C  IDEFSW = DEFENSE SWITCH
000019  00  C  MARGIN = IF AN ON-LINE DIV HAS MIN FRONTAGE + 1, AND ATK/DEF DRIFP IS
000020  00  C           GREATER THAN MARGIN, THIS DIV IS CONSIDERED A WEAK ON-LINE DIV
000021  00  C  IPOLMX = MAX QUANT OF DIV PER ARMY WHICH CAN EXIST IN RPOOL (MAX=9)
000022  00  C  WOLDTH = IF THE RATIO OF THE STRONGEST (IFP X STATE) DIV IN THE RPOOL
000023  00  C           AREA TO THE WEAKEST ON-LINE DIV IS GREATER THAN WOLDTH, THE
000024  00  C           RPOOL DIV WILL REPLACE THE ON-LINE DIV
000025  00  C
000026  00  C  LISTPL(9,6)
000027  00  C           LIST OF WEAK ON-LINE DIVS WHICH AN ARMY RESERVE CAN REPLACE
000028  00  C           9 = DIV INDEXES OF WEAK DIVS
000029  00  C           6 = PARENT ARMY HQ
000030  00  C  LISTLC(6)
000031  00  C           COUNT, BY ARMY, OF WEAK ON-LINE DIVS IN LISTPL ARRAY
000032  00  C  RPOOL(9,3,6)
000033  00  C           LIST OF REPLACEMENT DIVS
000034  00  C           9 = DIV INDEXES
000035  00  C           2 = INDEX OF WEAK ON-LINE DIV TO BE REPLACED (IF ONE EXISTS)
000036  00  C           3 = DELAY TIME TO IMPLEMENT REPLACEMENT PLAN (IN 12 HR DIV CYCLE)
000037  00  C           6 = PARENT ARMY HQ
000038  00  C  RPOOLC(6)
000039  00  C           COUNT OF ARMY RESERVE DIVS
000040  00  C
000041  00  C
000042  00  C
000043  00        WRITE(17,11) LISTPL,LISTLC,RPOOL,RPOOLC
000044  01   11   FORMAT(' UPLST, ON ENTRY, LISTPL=',2(9I3,2X),/,9X,9(9I3,2X)/
000045  02       * 20X,'LISTLC=',6I3,
000046  01       * 20X,'RPOOL=',6(/,5X,9I3,3X,9I3,3X,9I3),/,
000047  00       * 20X,'RPOOLC=',6I3)
000048  03  C    NEXT 16 LINES CANCELLED AS LISTLPL IS CLEARED IN EXAMIN, 1/79
000049  03  C     IF (LISTLC(IARMY).LE.0) GO TO 35
000050  00  C  WE HAVE A LIST OF WEAK ONLINE DIVS DO ANY MOVE
000051  03  C     ICOUNT=LISTLC(IARMY)
000052  03  C     DO 40 K=1,ICOUNT
000053  03  C     IF (LISTPL(K,IARMY).NE.IDIV) GO TO 40
000054  03  C     LISTLC(NARMY)=LISTLC(NARMY)+1
000055  03  C     INC=LISTLC(NARMY)
000056  03  C     LISTPL(INC,NARMY)=IDIV
000057  03  C     LISTLC(IARMY)=LISTLC(IARMY)-1
000058  03  C     IF (LISTLC(IARMY).EQ.0.OR.K.EQ.ICOUNT) GO TO 35
000059  03  CC MOVE LIST UP IN PARENT ARMY
000060  03  C     NCOUNT=LISTLC(IARMY)
000061  03  C     DO 30 K1=K,NCOUNT
000062  03  C     LISTPL(K1,IARMY)=LISTPL(K1+1,IARMY)
000063  03  C  30 CONTINUE
000064  03  C  40 CONTINUE
000065  00  C  SCAN PARENT ARMY RESERVE FOR REPLACEMENT DIV WITHOUT PLAN
000066  03  35    IF (RPOOLC(IARMY).LE.0) GO TO 9999
000067  00        ICOUNT=RPOOLC(IARMY)
000068  00        DO 50 K=1,ICOUNT
000069  00        IWEAK=RPOOL(K,2,IARMY)                    @CAA JAN 75
000070  00        IF (IWEAK.NE.IDIV) GO TO 50                    @CAA JAN 75
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000071  00          RPOOLC(NARMY)=RPOOLC(NARMY)+1
000072  00          INC=RPOOLC(NARMY)
000073  00          DO 37 JK=1,3
000074  00          RPOOL(INC,JK,NARMY)=RPOOL(K,JK,IARMY)
000075  00    37    CONTINUE
000076  00          RPOOLC(IARMY)=RPOOLC(IARMY)-1
000077  03    C     NEXT LINE MODIFIED TO ZERO THE RPOOL ARRAY, JAN 79
000078  03          IF (RPOOLC(IARMY).EQ.0.OR.K.EQ.ICOUNT) GO TO 43
000079  00    C  MOVE LIST UP IN PARENT ARMY
000080  00          NCOUNT=RPOOLC(IARMY)
000081  00          DO 42 KI=K,NCOUNT
000082  00          DO 39 JI=1,3
000083  00          RPOOL(KI,JI,IARMY)=RPOOL(KI+1,JI,IARMY)
000084  00    39    CONTINUE
000085  00    42    CONTINUE
000086  03    C'    NEXT 5 LINES ADDED TO ZERO THE RPOOL ARRAY, JAN 79
000087  03       43 RPOOL(ICOUNT,1,IARMY) = 0
000088  03          RPOOL(ICOUNT,2,IARMY) = 0
000089  03          RPOOL(ICOUNT,3,IARMY) = 0
000090  03          GO TO 35
000091  00    50    CONTINUE
000092  00    C
000093  00    C  DIVIDE ANY UNASSIGNED ARMY RSERVE DIVS EQUALLY
000094  00    C  OLD ARMY KEEPS ODD COUNT
000095  00    C
000096  00    60    IF ((RPOOLC(IARMY)-RPOOLC(IARMY)/2).LE.1) GO TO 9999
000097  00    C  FIND COUNT OF UNASSIGNED
000098  00          ICOUNT=RPOOLC(IARMY)
000099  00          ICANGO=0
000100  00          DO 65 IK=1,ICOUNT
000101  00          IWEAK=RPOOL(IK,2,IARMY)                    WCAA JAN 75
000102  00          IF (IWEAK.NE.0) GO TO 65                   WCAA JAN 75
000103  00          ICANGO=ICANGO+1
000104  00          IF (ICANGO.EQ.2) GO TO 80
000105  00    65    CONTINUE
000106  00     9999   CONTINUE
000107  00          WRITE(17,12) LISTPL,LISTLC,RPOOL,RPOOLC
000108  02     12   FORMAT(' UPLST, ON EXIT,  LISTPL=',2(9I3,2X),/9X,4(9I3,2X)/
000109  02         . 20X,'LISTLC=',6I3,
000110  02         . 20X,'RPOOL=',6(/,5X,9I3,3X,9I3,3X,9I3),/,
000111  00         . 20X,'RPOOLC=',6I3)
000112  00          RETURN
000113  00    C
000114  00    C  WE HAVE AT LEAST ONE ARMY RES DIV WHICH CAN GO TO NEW ARMY
000115  00    80    RPOOLC(NARMY)=RPOOLC(NARMY)+1
000116  00          NCOUNT=RPOOLC(NARMY)
000117  00          RPOOL(NCOUNT,1,NARMY)=RPOOL(IK,1,IARMY)
000118  00          RPOOL(NCOUNT,2,NARMY)=0.
000119  00          RPOOL(NCOUNT,3,NARMY)=0.0
000120  00          RPOOLC(IARMY)=RPOOLC(IARMY)-1
000121  00          IF (IK.EQ.ICOUNT) GO TO 9999
000122  00          DO 84 IJ=IK,ICOUNT
000123  00          DO 82 IJK=1,3
000124  00          RPOOL(IJ,IJK,IARMY)=RPOOL(IJ+1,IJK,IARMY)
000125  00    82    CONTINUE
000126  00    84    CONTINUE
000127  00          GO TO 60
```